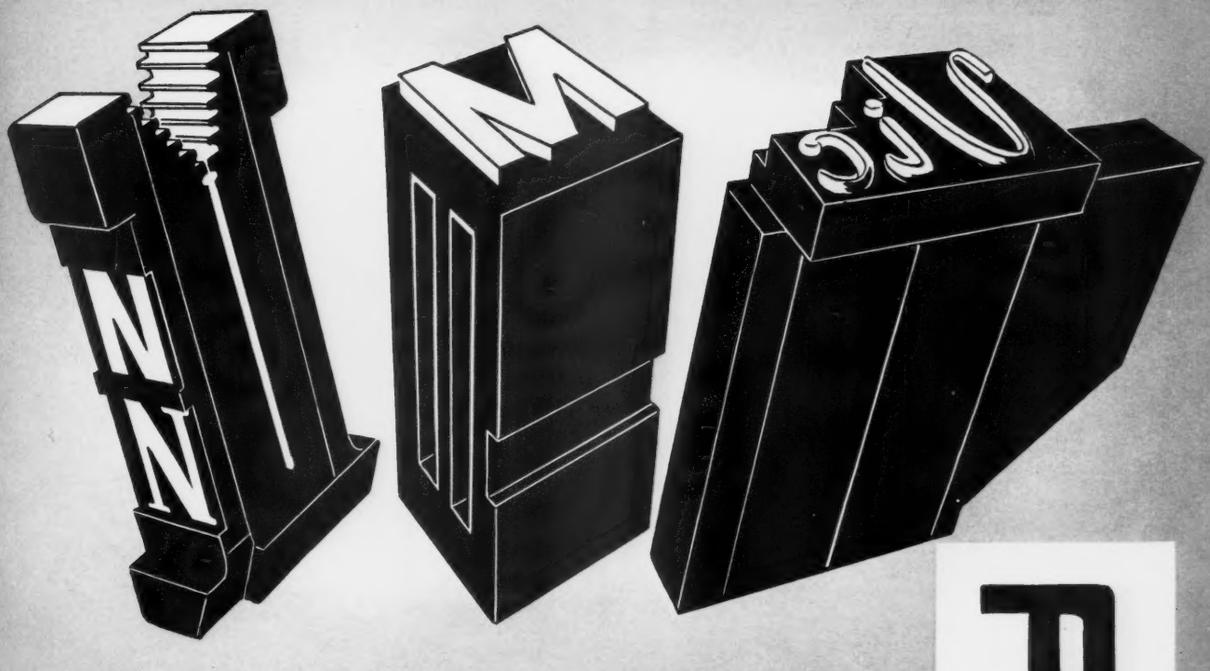
# PRINTING EQUIPMENT ENGINEER

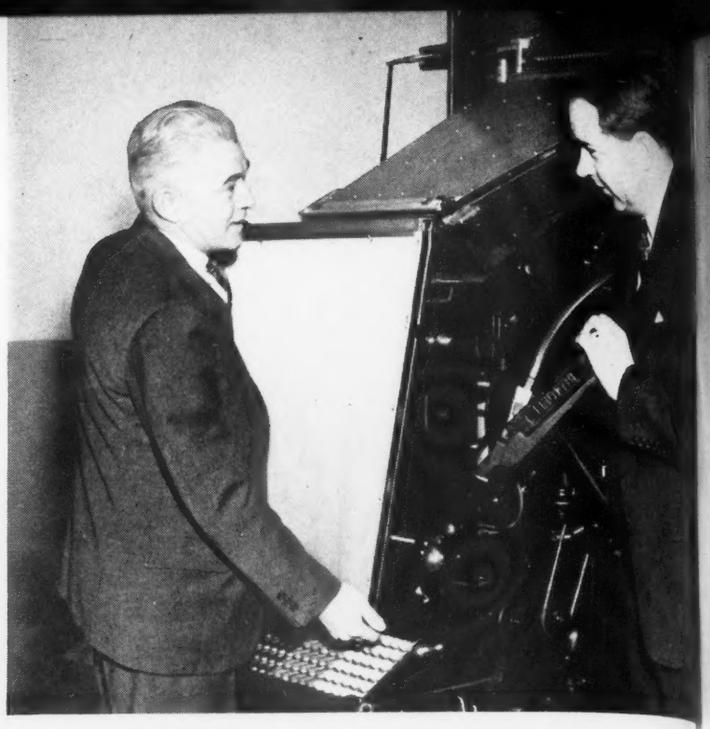


MAY 1939

A TECHNICAL PUBLICATION FOR PRODUCTION AND MECHANICAL EXECUTIVES IN THE GRAPHIC ARTS INDUSTRY

# DREAM PLANT

Printers dream of a plant where every piece of equipment is brand-new . . . where every operation is handled with the most modern machinery yet created. Seldom do they see such plant of any size because most shops start small, grow gradually, and early equipment may become obsolescent while new units are being added. Exception is new O'Brien Suburban Press at Norwalk, Connecticut. A model of printing efficiency, it covers over 30,000 sq. ft. of floor space. Every item of equipment had to prove itself the most modern, most efficient, most dependable. Of course Blue Streak Linotypes were selected . . . six of them.



**SHOWS EDITOR**—During an inspection of the new plant we snapped S. M. Cloud, who supervised equipment installation, demonstrating the ease of changing magazines with Linotype's famous Vertical Lift. Ernest Trotter, editor of *Printing* magazine, watched, then recalled those "old days" when he was an operator.

**SIX BLUE STREAKS** standing in a row. Oops, pardon! Number six stepped out of line. He's peeking around the corner of that new galley dump. The peeker-outer is a Master Model 31, same as the last three in line. Numbers one and two are Model 29 Mixers with Self-Quadders. All carry four magazines, have One-Turn Shift, and those many other exclusive Linotype advantages.

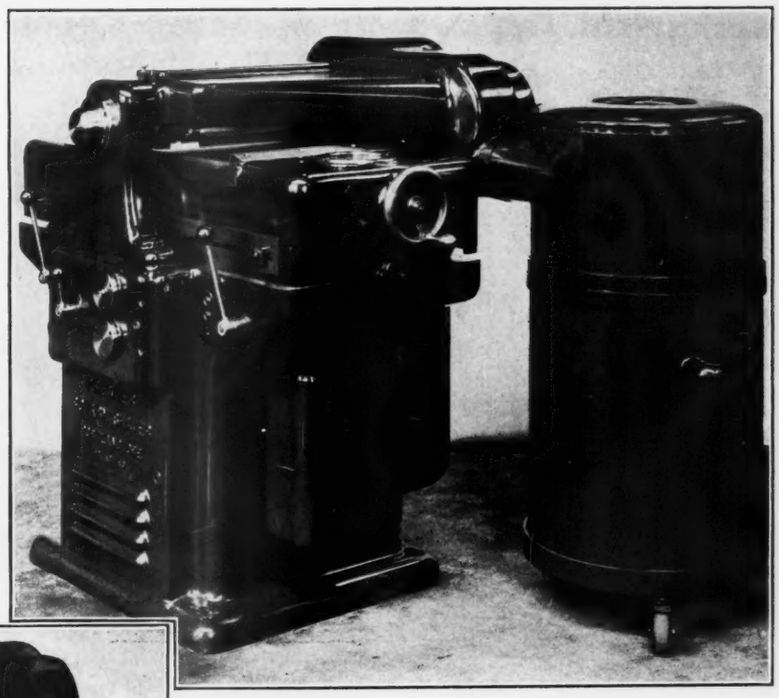
TRADE LINOTYPE MARK

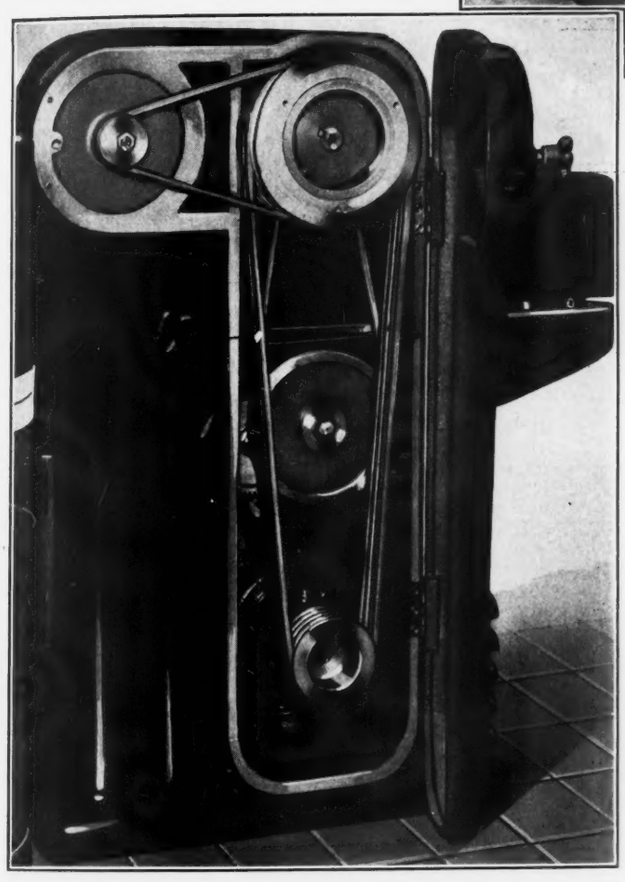
Linotype Erbar Bold Condensed and Scotch No. 2

# Premier

## ROTARY SHAVER

*Note its Sturdy design. Enjoy its accurate product that saves you money.*





*Adjustable V Belt Drives*

Sta-Hi Corporation is now the SOLE distributor for this SPLENDID MASTER TOOL, The *Premier Rotary Shaver*, and is proud to serve the trade with this remarkable machine.

So many users of the Premier have emphasized the *great saving in time, the definite accuracy* of flat shaved products and the very small amount of maintenance required, plus easy operation.

Keep in mind—*Premier is a lifetime machine*, it is designed for many years of efficient operation.

When you buy a Premier you are buying for the future, *because of its long life.* Premier is the cheapest in the long run.

We are pleased to announce a *substantial reduction in price* on the Premier due to perfected production routine.

## STA-HI CORPORATION

**1020 CROCKER ST.**
**LOS ANGELES, CAL.**

**OREGONIAN BLDG.**
**PORTLAND, ORE.**

STA-HI

# Mechanical Department Manager Reports

AMONG other things, the Annual Report of the Mechanical Department prepared by Manager W. E. Wines for presentation to the American Newspaper Publishers Association at its April meeting in New York, contains a review of the activities of the department for the past year. Also presented are plans for the Thirteenth Annual Conference to be held at Hotel Benjamin Franklin, Philadelphia, on June 5, 6 and 7.

The Manager states:

> The value of the annual Mechanical Conference is proved by the fact that they continue to draw a large attendance in spite of the competition or counter attraction of the numerous similar meetings held during the last few years by regional and state associations. In this activity the A.N.P.A. blazed the way twelve years ago. The need for and value of these Conferences has been demonstrated by the spread of the movement throughout the country and even to far away Australia.

The manager reports favorable acceptance of the standardized color inks for letterpress four-color supplement printing among member newspapers. In connection with his comments upon these colors, he reports:

> At the rotogravure session at Toronto, last June, the desirability of similar standards for the shades of rotogravure inks was strongly emphasized, particularly by the advertising agency men in attendance. As a result of this discussion, steps are now being taken to determine whether or not such standardization of roto gravure inks is feasible. This is being done through the Joint Committee on Newspaper Printing, representing the A.N.P.A. and A.A.A.A. As this is a matter which offers numerous difficulties, it would be unwise to predict at this early date that such standardization can be effected. It is interesting to observe in this connection that the agency representatives were more disturbed about the variation in the brown ink used for monochrome printing than in the colors used in four-color advertising.

Among the department activities discussed are those of newsprint roll reduction in the form of two reports, one in February and one in November, 1938. In the February report it was shown that nearly 100 newspapers had reduced roll widths during the preceding two years. The November report listed 102 additional reductions.

With respect to newsprint waste, Manager Wines reports:

> Because this is a costly item which can be kept at a reasonable minimum by careful management, newsprint waste continues to receive attention. The quarterly report from approximately 150 contributing offices continues to be published. It is encouraging to note that the percentage figures continue to exhibit a downward tendency. Comparison of the figures for the fourth quarter of 1938 with those for the fourth quarter of 1937 shows a reduction in each of the four classes. The average total waste percentage of all classes was 2.90 in 1937 (fourth quarter) and the corresponding figure for 1938 was 2.73. This reduction of .17 percentage may look rather insignificant; but, when applied to the annual paper consumption of the reporting offices and evaluated in money, it amounts to some $150,000—an imposing sum.

Mention was made in the annual report last year of an office using approximately 35,000 tons annually which had reduced its waste percentage by 1½ percent, with a consequent savings of $20,000, or more, a year. Current reports from this office show a further reduction of approximately ¾ of one percent, or a money saving of an additional $10,000 a year.

Some illuminating figures supplied by the Louisville *Courier-Journal* and *Times*, covering nine years, were also published. This office became actively interested in waste reduction in February, 1931. The figures show that in 1930, the year before the reduction campaign started, the total waste of all kinds was 4.73 percent of consumption. The corresponding figure for the year 1938 was 1.76 percent. In other words, 62 percent of the waste expense had been eliminated over an eight-year period. This shows what can be accomplished when management becomes really interested and determines that waste must be reduced.

The figures quoted have been from offices definitely in the large class, but no office is too small to ignore the expense of newsprint waste.

In addition to the waste report figures, the quarterly reports during the last year have covered interesting, illustrated stories showing how waste has been reduced and kept down by such offices as the Youngstown *Vindicator*, Washington *Star*, Illinois *State Register*, and Fort Wayne *News-Sentinel*.

---

# *Halftone Stencil Punch for Zinc Plates*

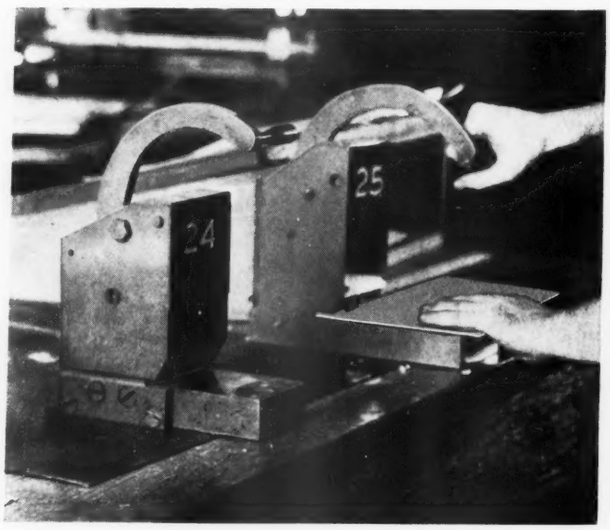
To identify all halftones made in its photo-engraving department, *The Christian Science Monitor*, (Boston) uses a stencil punch. The lettering appears in white relief against the screened background. The punch, devised by Photo-engraving Foreman Arthur Burbank, is provided with a substantial base for solidity. At the rear end of the base a housing supports the steel punch and the punching mechanism. In reality, the punch is impressed into the surface of a zinc cut by a squeezing action when the handle is depressed. Movement of the punch is limited from a position which just clears the halftone plate when it is inserted in the machine so that the depth of the letter characters will not exceed a distance of 1/64 in. below the printing surface of the plate when the lever is depressed.

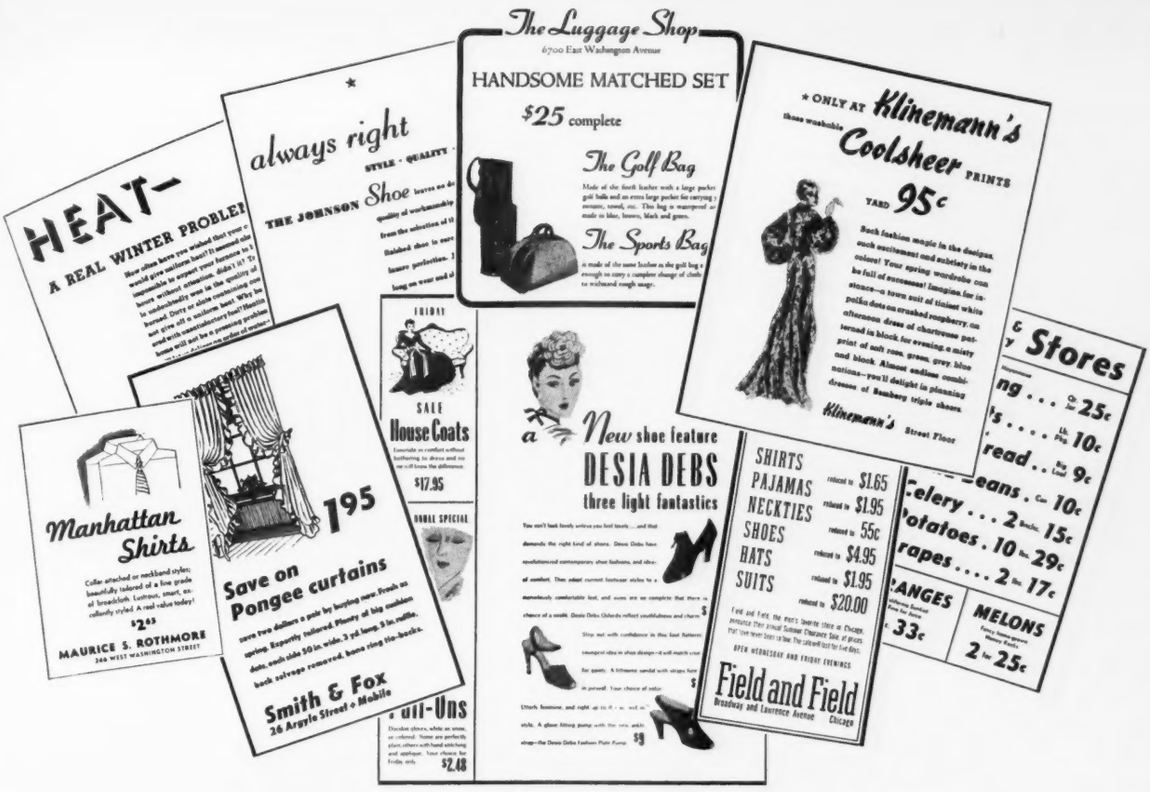
In the illustration, two machines are shown. Each carries a stencil of different size. One of the machines is constructed to operate through a toggle arrangement when the lever is depressed by hand. The punch in the other machine is actuated by cam action. In both cases an extension spring returns the punch and lever to normal position.

The punches were cut in steel and hardened by a stencil firm. The pattern was supplied by sending a proof, the type for which was set in engraver's plate gothic.

An adjustable back-stop or gauge is provided to move the cut to the exact position desired for punching.

*Section of halftone cut showing white letters impressed into the printing surface of the cut. This illustration was reproduced directly from a copy of the* Christian Science Monitor. *The lettering in the original was excellent.*




*View of two photo-engraved printing plate stencil punching machines used in plant of* Christian Science Monitor, *Boston. The hardened steel punch on the end of which small letters have been engraved, is impressed into the surface of a zinc halftone for identification purposes.*

# One way to build display linage

While display advertising is the main source of a daily newspaper's income, the facilities for making such advertising effective receive the consideration of the publisher all too seldom.

In the last analysis, volume of display is dependent upon the actual returns from advertising rung up on the cash registers of the advertisers. It is no secret that as sales go up, expenditures for local advertising are increased.

So it is money in the publisher's pocket to increase the sales returns from his customers' advertising. How can he do this?

Two features contribute to the likelihood of advertising delivering its merchandising message. One is the power of the advertisement to attract the eye; the other is the clarity and legibility of the typography in which the sales story is presented to the reader.

Up-to-date and well-designed typefaces contribute to heighten the effectiveness of display advertising in both these respects.

Ludlow typefaces perfectly fill this bill. They will be welcomed enthusiastically by your local advertisers. Their use will encourage advertisers to step up their current linage. Ask them and see.

Newspaper display advertising deserves the attention of readers, but it also deserves the attention of the newspaper publisher, to whose income it so largely contributes.

We will gladly send specimen sheets showing Ludlow typefaces specially adapted to local display composition.

We shall be glad, without obligation, to offer specific suggestions for restyling the display typography of important local advertisers, who may be desirous of improving the attractiveness and effectiveness of their messages.

**Ludlow Typograph Company**

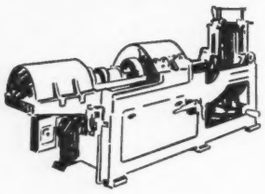
2032 Clybourn Avenue + Chicago, Ill.

Set in members of the Ludlow Karnak family

# WOOD NEWSPAPER MACHINERY NEWS

New York, N. Y. | A.N.P.A. CONVENTION | April 29, 1939

## The Pony Autoplate Machine



RECENT PURCHASERS

Asheville Citizen Times
Butler Eagle
Elgin Courier News
Framingham News
Green Bay Press-Gazette
Johnstown Tribune
Kalamazoo Gazette
La Razon, Buenos Aires, Argentina
Richmond Times-Dispatch
Salt Lake Tribune
Victoria Colonist
Waukegan News Sun

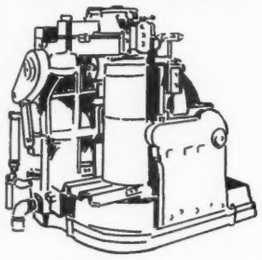
The Pony Autoplate casts, shapes, shaves, trims and cools the plate, delivering it ready for press, thus eliminating all hand - planing, hand - tooling, hand-dipping, etc.

It produces plates of uniform thickness and accurate curvature, thus lessening web-breaks and newsprint waste. It saves damage to press blankets and many other losses and delays which are due to defective or inaccurate printing plates.

It saves time in the pressroom by insuring a quicker dressing of presses and by promoting their continuous operation.

It makes for a better looking newspaper and puts it on the street earlier.

## Automatic Autoplate Machine

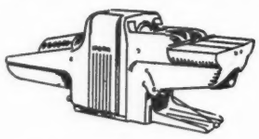


RECENT PURCHASERS

Minneapolis Star
St. Louis Post Dispatch
Nichi Nichi Shimbunsha, Tokyo

The Automatic Autoplate Machine produces four printing plates a minute. This speed is fixed and dependable; anyone can estimate quickly and accurately, by merely glancing at a clock, when a required number of plates will be ready for the pressroom.

## The Wood Autoshaver



RECENT PURCHASERS

Chicago Tribune
Dallas News
Minneapolis Star
St. Louis Post Dispatch
Nichi Nichi Shimbunsha, Tokyo

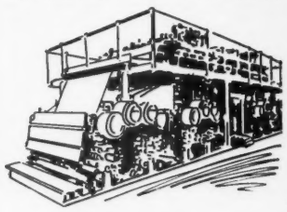
## New Wood Vacuum Equipment

Without Vacuum | With Vacuum

RECENT PURCHASERS

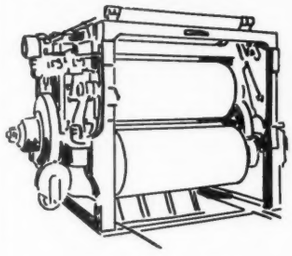
Asheville Citizen Times
Birmingham News & Age-Herald
Chicago Herald Examiner
Chicago Tribune
Cincinnati Times-Star
Cleveland News
Dallas News
Des Moines Register & Tribune
Detroit News
Elgin Courier News
Green Bay Press-Gazette
Johnstown Tribune
Kalamazoo Gazette
Knoxville News-Sentinel
Louisville Courier-Journal
Memphis Commercial Appeal
Minneapolis Star
New Orleans Times-Picayune
New York Evening Journal
The New York Times
St. Louis Post Dispatch
Salt Lake Tribune
Springfield Newspapers
The Toronto Star
Victoria Colonist
Nichi Nichi Shimbunsha, Tokyo

## Wood Steel Press Units And Folders



SIX MORE Wood Press Units and Two Folders, complete with Autoclamps, Autoreels, and full-speed, full-automatic Autopasters, were ordered by the New York Times recently. When these new units have been installed, the Times will have a total of fifty-two Wood Steel Units in operation, all equipped with Autoreels and full-speed Autopasters.

## Autopasters And Reels



RECENT PURCHASERS

Alco Gravure, Inc.
Cuneo Press
McCall Corporation
The New York Times
The Toronto Star

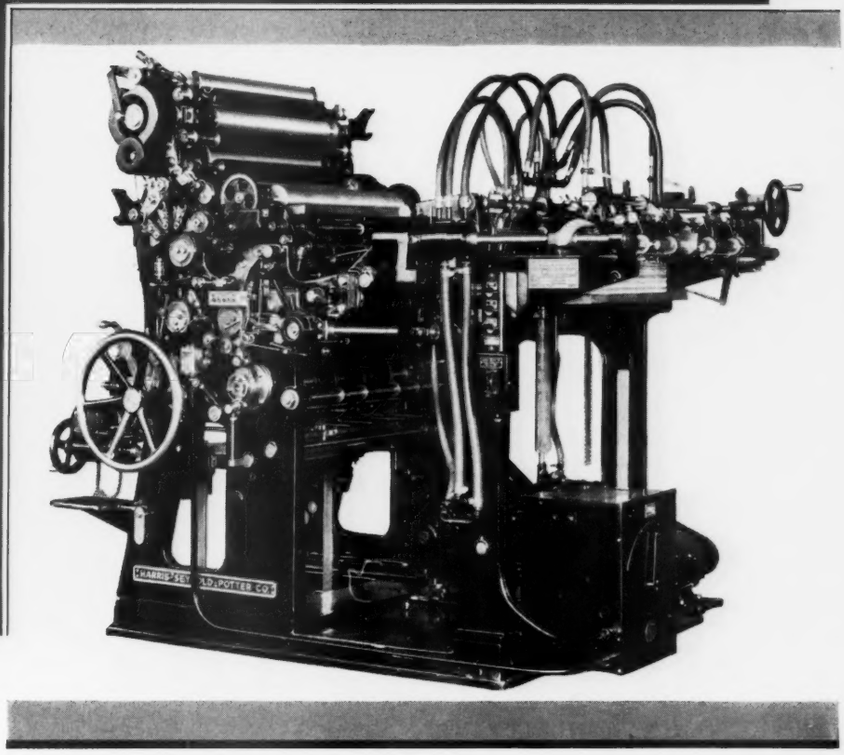
Wood Autopasters can be used not only with Wood Autoreels, as shown in the above picture, but also with Standard Reels of Wood or any other manufacture.

## WOOD NEWSPAPER MACHINERY CORPORATION

PLAINFIELD, NEW JERSEY • NEW YORK: 501 FIFTH AVENUE

# BUSINESS NOW ACCEPTS MODERN OFFSET

★ The Pressman Can Produce it on a *Harris*



• The American standard of business is to expand! But expansion will thrive only when the method is modern. Harris Offset Presses are the foundation equipment upon which progressive management places responsibility for modern advertising results —the advance agent of ALL business expansion.

Business will accept the results of modern Offset when produced on modern precision equipment. The producer of Offset can assure this result with Harris equipment.

## Plate Making

Through research Harris has developed and standardized new chemicals for both deep etch and surface plate making processes. Full details upon request. Write us with reference to your lithographic problems.

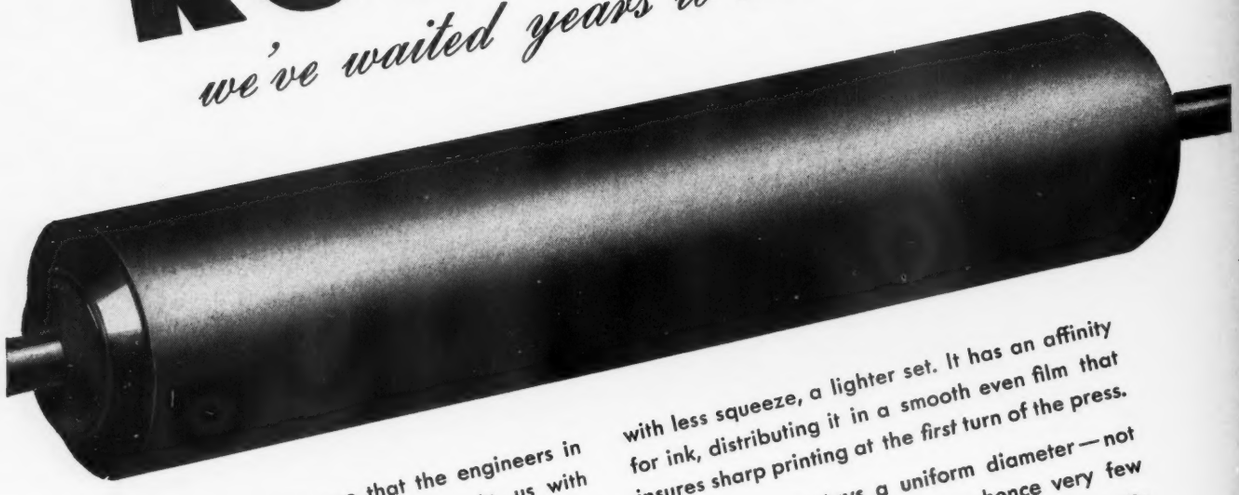
OFFSET IS THE MODERN METHOD

## HARRIS·SEYBOLD·POTTER COMPANY

*General Offices:* 4510 E. 71st Street, Cleveland, Ohio. • *Harris Sales Offices:* New York, 330 W. 42nd Street; Chicago, 343 S. Dearborn Street; Dayton, 819 Washington Street; San Francisco, 420 Market Street. • *Factories:* Cleveland, Dayton

PIONEER BUILDERS OF SUCCESSFUL OFFSET PRESSES

# *An Announcement about* ROLLERS *we've waited years to make*



It was just two years ago that the engineers in our development department came to us with their test dope on a new synthetic compound printers' roller. It looked like the answer to a pressman's prayer.

But you can't be too careful about rollers. Some that check out O.K. in the laboratory will develop strange "bugs" under the wide range of operating conditions encountered on a nation's presses—as we've learned from experience.

So just to be sure, we planted a number of these new synthetic rollers here and there in pressrooms where we could keep tab on their performance alongside other rollers. They've done such a standout job in run-of-press service that now we're ready to talk about them.

**It spreads ink better**

This new Goodyear synthetic roller is somewhat softer than ordinary rollers—it breaks up the ink with less squeeze, a lighter set. It has an affinity for ink, distributing it in a smooth even film that insures sharp printing at the *first* turn of the press.

It is oilproof. It stays a uniform diameter—not affected by weather changes—hence very few adjustments are necessary. For this reason regrinding is seldom required, but it will regrind perfectly.

The net of this is extremely long, trouble-free life, with clearer, cleaner, sharper printing. Pressmen tell us it is a great improvement in roller construction. For complete information, write Printing Supplies Department, Goodyear, Akron, Ohio.

*Also distributed by*

J. THOMAS McHUGH COMPANY, 305 Merchants Bank Building, Indianapolis, Indiana

GEORGE RUSSELL REED JR., 431 Clay Street San Francisco, California

A Centennial Product of The Greatest Name in Rubber

ON YOUR NEXT ORDER *Specify* THE GREATEST NAME IN RUBBER

GOODYEAR

SYNTHETIC RUBBER PRINTERS' ROLLERS

CCA

Member of Controlled Circulation Audit

# PRINTING Equipment ENGINEER

## Contents for May, 1939:


MECHANICAL DEPARTMENT MANAGER REPORTS - - - 4

HALFTONE STENCIL PUNCH - - - - - - - - - - - 4

SURVEY OF MATERIALS HANDLING EQUIPMENT - - - 15
FRED MERISH

WHO IS IT? - - - - - - - - - - - - - - - - - 17
ADAM HENRI REISER

EQUIPMENT—SUPPLIES - - - - - - - - - - - - 18

PAPER PROBLEMS - - - - - - - - - - - - - - 24
LETTER P. OFFGRAV

SYSTEM IN PRODUCTION - - - - - - - - - - - 27

A.N.P.A. MECHANICAL CONFERENCE - - - - - - - 28

SERVICER BOX - - - - - - - - - - - - - - - 30
CHARLES G. HAMBLEN

UNEASY FEELING - - - - - - - - - - - - - - 30
JOE GALLAGHER

MONOTYPE PRODUCTION RACK - - - - - - - - - - 31

BOOKS RECEIVED - - - - - - - - - - - - - - 32

ROLLER-SETTING GAUGE - - - - - - - - - - - - 34
AUBURN TAYLOR

PATENTS - - - - - - - - - - - - - - - - - - 38

292-PAGE ANNIVERSARY EDITION - - - - - - - - - 53



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A Technical Publication for the Mechanical Executive Responsible for Printing Production, Equipment and Supplies in the Commercial, Magazine, Private Plant and Daily Newspaper Field.

# You are Invited

## THESE COMPANIES

**leading firms of your industry who are entitled to use this emblem**

**extend to you a cordial invitation to be among their more than 100,000 guests at the Fifth Educational Graphic Arts Exposition at Grand Central Palace — the greatest exposition the Graphic Arts has ever held.**

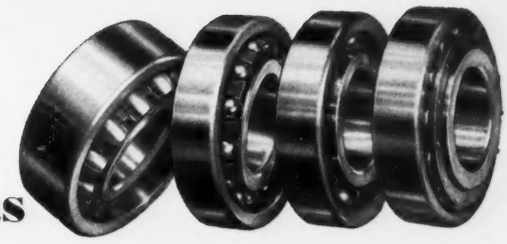
**They will demonstrate the very latest improvements they have effected in their machines and products to make your business more profitable.**

**The list is growing every day. Other leaders in their field are arranging to adopt the "Exhibitor" mark of distinction, which identifies them with the progress of the industry.**

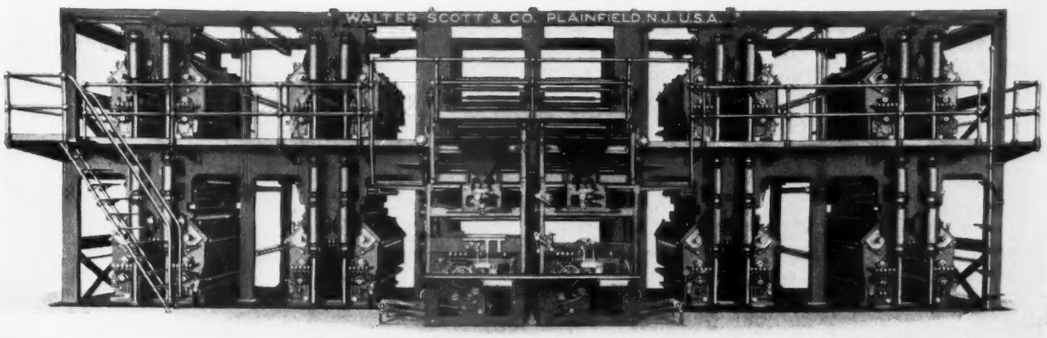
### EXHIBITORS
(AS OF APRIL 20, 1939)

American Type Founders Sales Corp.
Russell Ernest Baum
Samuel Bingham Manufacturing Co.
Binks Manufacturing Co.
B. H. Bunn Co.
E. W. Blatchford Co.
Boston Wire Stitcher Co.
Brandtjen & Kluge, Inc.
Frank P. Carlson Company, Inc.
Challenge Machinery Co.
Chandler & Price Co.
Christensen Machine Co.
Cline Electric Manufacturing Co.
C. B. Cottrell & Sons Company
Craftsman Line-Up Table Corp.
Dayton Rubber Manufacturing Co.
Dexter Folder Co.
Henry Disston & Sons, Inc.
Eastern Manufacturing Company
Embossograph Process Co., Inc.
William A. Force & Company, Inc.
E. C. Fuller Co.
Wm. Gegenheimer, Inc.
Hamilton Manufacturing Co.
Hammond Machinery Builders, Inc.
Harris-Seybold-Potter Co.
H. H. Heinrich, Inc.
Imperial Type Metal Co.
The Inland Printer
Intertype Corp.
Kelly Metal Corporation
Kimble Electric Company
Krug Electric Co., Inc.
Lanston Monotype Machine Co.
Ludlow Typograph Co.
Mergenthaler Linotype Co.
Miehle Printing Press & Mfg. Co.
Miller Printing Machinery Co.
Modern Lithography
National Assn. of Printing Ink Makers
New Era Manufacturing Co.
Payne & Walsh Corporation
Geo. W. Prentiss & Co.
The Printing Machinery Co.
Printing News
Production Year Book
Rapid Roller Co.
F. P. Rosback Co.
H. B. Rouse & Co.
Smyth Manufacturing Co.
Stereotype Equipment Co.
Thomson-National Press Co.
United American Metals Corp.
U.P.M. Kidder Press Co., Inc.
Vandercook & Sons, Inc.
S. D. Warren Co.
Webendorfer-Wills Co., Inc.
Wetter Numbering Machine Co.

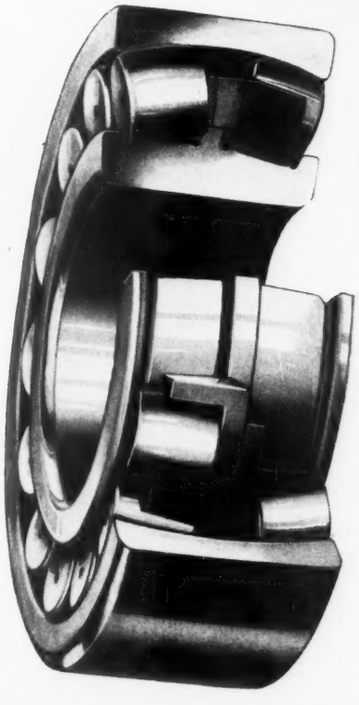
**The National Graphic Arts Expositions, Inc., 480 LEXINGTON AVENUE, N. Y.**



# 36,000 NEWSPAPERS PER HOUR MEANS NOTHING TO SKF-EQUIPPED PRESSES




• *"Standard Hi-Speed" Color Press, built by Walter Scott & Co., for Detroit News Plant.*



## THE GOOD PERFORMANCE OF SKF BEARINGS INSURES HIGH SPEEDS WITH NO DELAYS FOR BEARING TROUBLE

• Normal running speeds of 36,000 newspapers per hour could not be maintained by this Scott "Standard Hi-Speed" Color Press without the proper functioning of antifriction bearings.

That the bearings on upright shafts, web rollers, folder vertical shafts and other high speed shafts are SKF is a guarantee of swiftly moving parts and a good job of color printing.

Chances are the color in the magazine you're reading was applied by presses that run on SKF Bearings. Most of the presses that produce quality work at high speeds *are* SKF-equipped.

Near you is an SKF representative who can select from more than 3000 types and sizes the right one for your particular application. See him, or write direct.

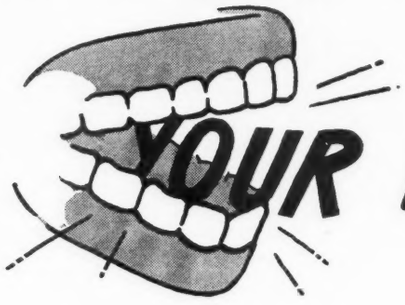
4331

**SKF**

**Ball and Roller Bearings**

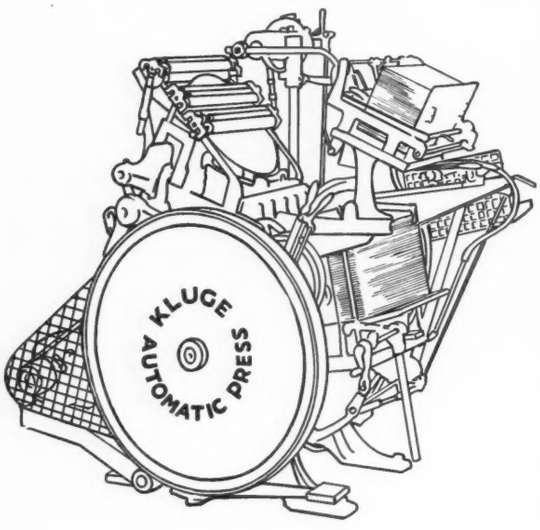
SKF INDUSTRIES, INC., FRONT ST. & ERIE AVE., PHILA., PA.

# Don't Let Idle Presses Eat Up YOUR Profits!



● Equip your plant with the only Automatic Jobber that has the **RIGID IMPRESSION** so necessary for the best printing . . . and remember it is **RIGID IMPRESSION** that makes the **KLUGE AUTOMATIC PRESS** the first, and only, platen capable of producing fine printing as well as "run of the mine" job work. The **KLUGE AUTOMATIC PRESS** works all the time while "Specialized" presses eat up profits in idleness.

## The Busiest Press in any Pressroom!



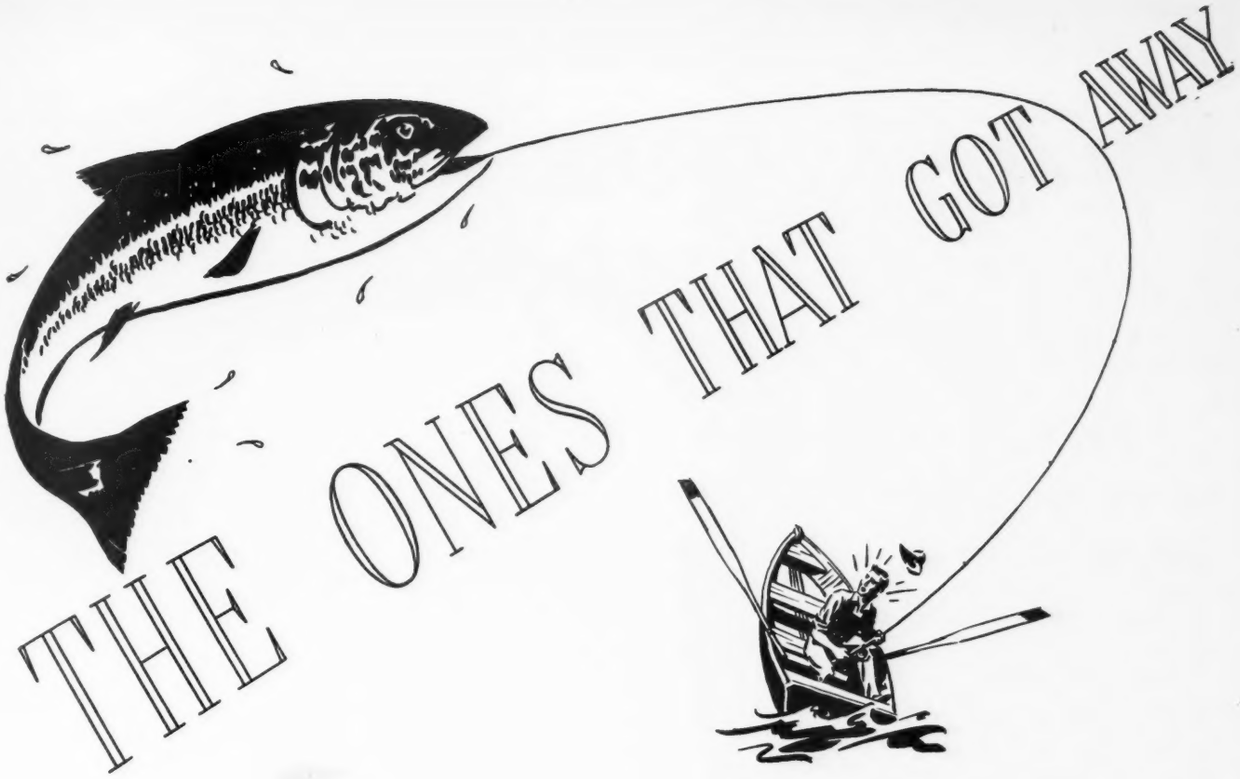

## The KLUGE AUTOMATIC PRESS

● RIGID IMPRESSION makes the Kluge Automatic the most versatile press on the market. It cuts makeready time in half and the makeready stands up because it is not squeezed and punched on every impression. Equip your plant with the Kluge Automatic Press — the press that will make you profits all day, every day.

**BRANDTJEN & KLUGE · INC.**

MANUFACTURERS · SAINT PAUL, MINNESOTA

BRANCHES IN BOSTON · NEW YORK · PHILADELPHIA · CHICAGO · ATLANTA · DETROIT
ST. LOUIS · SAN FRANCISCO · DALLAS · LOS ANGELES · MINNEAPOLIS · CANADA: SEARS, LTD.




ALL FISHERMEN have alibis for "the ones that got away." Even if they land a ten-pounder, they insist on talking about the ones they DIDN'T get which were "twice as big." They'll tell you that the line snapped . . . or the boat rocked . . . or something happened to the hook . . . but YOU know that they just weren't good enough fishermen to land the "whoppers." Either they didn't have enough skill . . . or THEY WERE TAKEN BY SURPRISE WHEN THE BITE CAME!

Just as fishermen have to be ready for the big fellows, YOU have to be all set to go when a customer comes in with a big rush order . . . and many a printer has lost a job because he didn't find out until the last minute that his rollers were in need of replacement. Change in weather conditions or improper care may have reduced roller efficiency . . . and rush orders won't wait until you can get delivery on a new set!

Don't put yourself in the spot where you have to tell "fish stories" about the orders "that got away." Check your rollers NOW . . . and get set with BINGHAM, the leading manufacturer of ALL KINDS of printers' rollers. Whether your roller needs call for COMPOSITION, RUBBER or VULCANIZED OIL, you'll find that scientific knowledge, experience and the modern efficiency of its SIXTEEN FACTORIES enable BINGHAM to sell MORE for LESS.

**SIXTEEN BINGHAM FACTORIES**

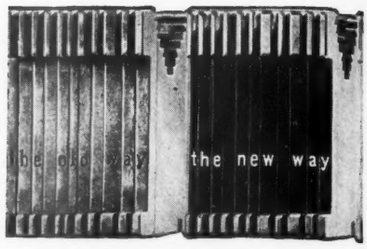
CHICAGO
ATLANTA
CLEVELAND
NASHVILLE
DES MOINES
DALLAS
DETROIT
HOUSTON
INDIANAPOLIS
KALAMAZOO
KANSAS CITY
ST. LOUIS
OKLAHOMA CITY
MINNEAPOLIS
SPRINGFIELD, O.
PITTSBURGH

# SAM'L BINGHAM'S SON MFG. CO.

*Manufacturers of Printers' and Litho-Offset Rollers*

# *Do YOU know the answers?*

**Here are six questions about Matrix Contrast Service. See if you know the answers:**




**How many errors in machine composition are actually prevented by the use of Black & White reference marks on Linotype and Intertype matrices?**

An average of about one-third of all errors.

**After the novelty of having Matrix Contrast wears off, do the operators keep on making fewer errors? In other words, do the savings *last?***

Yes, it has been proved that the saving of errors effected by Black & White service lasts indefinitely. In fact, the savings actually grow larger after a year or more of Matrix Contrast service.

**Do the operators lose time through reading lines in the assembler?**

No. The operator seldom reads a line in the assembler (except correction lines) unless the sound or "feel" of the machine tells him something is wrong, in which case he finds the error at a glance and corrects it before sending in his line.

**Can the savings effected by Matrix Contrast be proved?**

Yes . . . in *two* ways. First, by the experience of other users, as shown by carefully audited surveys. Second, by the use of Matrix Contrast service in your own plant—with a guaranty that it will effect a specified reduction of errors.

**Is the use of Matrix Contrast service confined to big metropolitan newspapers?**

No, a large number of small dailies, as well as book and job plants, are using this time-saving service.

**Does Black & White service keep matrices clean?**

Yes, the matrices get a thorough cleaning every time they are serviced.

***Write for detailed facts and figures***

**MATRIX CONTRAST CORPORATION**
**Empire State Building - New York**

Sole Licensees of the Percy L. Hill Matrix Contrast Patents Nos. 1,466,437 and 1,796,023

# BLACK & WHITE
## MATRIX CONTRAST SERVICE

# Survey

## On materials handling equipment in the printing plant reveals big economies in modernization—average labor-time is 25%, some plants 50%

*By* FRED MERISH

INVESTMENT in adequate materials handling equipment pays bigger dividends today than ever before. That was the concensus of opinion given by executives in printing and publishing plants contacted during a recent survey. This field research disclosed that although approximately 30% of these business concerns are taking advantage of improvements made in materials handling equipment during recent years, 70% of the plants visited could achieve substantial economies, speed up production, minimize delays and accidents, save valuable space, avoid congestion and cut costs by replacing older units with streamlined models or using mechanical devices to facilitate industrial haulage now done by hand.

*Fig. 1.—Delivering newsprint rolls to the press. This truck handles rolls in length from 35 in. to 72 in. and in weight from 800 to 1600 lbs. One man stores rolls as they are delivered to the storage room. Truck trips range from 10 to 100 ft. from the receiving slide to the farthest point in the room. Two short rolls are picked up and delivered at one time by means of this truck.*

Materials handling equipment reviewed on this survey may be classified as follows:

1—Industrial Rolling Stock: Floor trucks, tractors, trailers.
2—Lifting Equipment: Lift trucks, stackers, piling machines, tiering machines, floor cranes, elevators.
3—Conveyors, chutes, slides.
4—Blower conveyors.
5—Accessories: Casters, rubber-tired wheels, platforms, pallets, stock boxes on skids, skid platforms, remote control devices, safety stops, storage racks.
6—Equipment built specially to fit plant requirements. Trucks and lifters were hand-operated or motor-driven; elevators, portable or stationery.

### Economies in Haulage Operations

Executives contacted reported substantial economies in a wide range of industrial haulage operations. In one printing house, heavy loads of printed stock are set out to dry by power truck pushing skid platforms, an operation that took twice as long before with three men instead of the one now running the truck. In another printing plant, production has increased, shutdown time on machines previously clogged with waste paper has been reduced and the plant kept cleaner by means of a blower system, which removes 50 tons of waste paper daily.

Storing large quantities of paper is costly unless adequate tiering and stacking equipment are used. We saw newsprint tiered with lift truck, two and three rolls high in storage, later transported to presses on platform trucks. In some storage rooms rolls of paper stacked vertically instead of horizontally, producing economies in time, labor and space. Vertical stacking on end from floor to ceiling can be done only with modern lifting equipment. Cases of paper, weighing 500 lbs., were piled from two to four high with lifting equipment, increasing storage facilities from 100% to 300% over previous placement with less adequate equipment. In many printing and publishing plants we found lift trucks double-decking heavy paper loads, thereby increasing storage space, in some cases, saving the expense of building additions to store-rooms. One printing executive reported tripling storage space by piling cases of paper three high instead of one high, using a lift truck recently purchased, which also unloads incoming shipments, trundles them to storage, then, as needed, to pressrooms.

*Fig. 2.—Tiering boxed paper by means of portable elevator.*

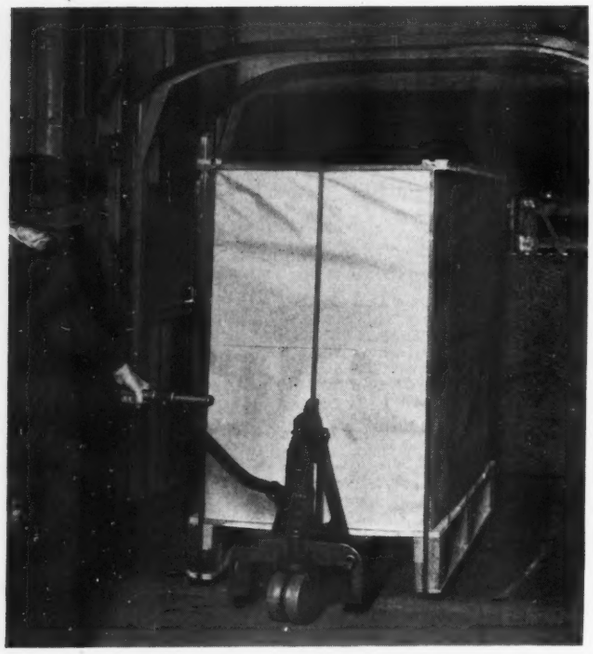


*Fig. 3.—Hand trucking heavy skids of paper to and from elevator by lift truck.*

### Concentrating on One-Man Power

Heavy loads up to 5000 lbs. that strong men could only handle piecemeal were seen being moved and tiered with ease by means of modern lifting equipment. In one plant, a man carried armfuls of paper upstairs consuming much of his day. Now a power lifter rests in a shallow pit in the floor, the platform, when lowered, flush with the bottom floor, when elevated, even with the floor above. This man now handles 1000 pounds at one time and the work takes only an hour or so daily. Quicker loading and storage of raw materials, faster processing and speedier loading of trucks result from modern materials handling equipment. Printing plant space is usually more costly than storage.

Raw stock and finished work often hog floor space, get in workers' way, delay production. Industrial haulage trucks with pick-up adapters, forks, rams, scoops and aprons, minimize this problem in many plants visited. Heavy paper rolls are easily and safely moved with industrial trucks. In some cases, the paper is transported in vertical position. Unloading from trucks, elevating for storage, transporting to presses and other machines, all of this inter-plant haulage is handled in Eastern printing and publishing houses at substantial savings with modern materials handling equipment.

### Conveyors Are Dollar-Savers

Conveyors are dollar-savers in many plants, particularly in the newspaper field, where we viewed belt and roller conveyors, shunting bundles of newspapers to trucks and handling bundles after they slid down spiral chutes from the pressrooms.

### Minimizing Paper Damage

Many reports were received anent substantial reductions in damage to paper where modern equipment was used. Rolling or sliding paper over a floor does damage. Modern equipment minimizes this loss. Rubber-tired wheels are used in some plants and executives report much less jarring noise, less fatigue on workers using hand equipment, consequently, more loads transported daily, greater speed, less wear on floor and truck.

### 25% to 50% Savings

From analysis of our survey work sheets, we find that the average saving in labor and time is 25%, some reporting as high as 50%, directly traceable to modern handling equipment, often enough to write off the initial investment in less than a year, sometimes in six months. Customers and workers are better satisfied. No straining, bending, lifting heavy loads, no fatiguing effort, no afternoon lag so detrimental to output and common where inter-plant haulage equipment is inadequate. The men do faster and better work with modern units. We saw loads tiered to the height of three men, lowered just as easily as lifting a hat box off a shelf, the load held securely without slippage, no over-balancing of truck and the result—minimum labor costs and floor space. In a number of plants visited, maintenance figures on obsolete equipment ran abnormally high. Investment in modern equipment would be money in pocket.

### Ways to Solve Your Problem

Materials handling equipment varies with the plant, even in the same field, hence, the equipment should be "tailored" to fit the work to be done. So many different type units are available that most plants will find standard equipment suitable for requirements but in the event that special devices are needed, certain manufacturers will make them to order. Seek competent advice and consider all types of equipment before purchasing. Consider cost per year and per ton moved. When comparing relative efficiencies of different units, consider the installation cost, interest on investment and performance in tons per man per hour, also cost per ton mile, also depreciation, how long the equipment will last and its salable value when replaced. Another comparison that may serve as a yardstick to getting the most service for your dollars is the cost per ton mile per year for each thousand dollar investment.

## *Invitation Repeated*

Many production and mechanical executives who have eliminated bothersome problems by devising some mechanical means tell you from time to time how they overcame these problems in *Printing* Equipment *Engineer*. Many of these ideas have helped you with your problems —many of our readers tell us so. In turn, for the benefit of other executives, the editor invites you to discuss briefly and informally some device which you have developed. Just grab the old pencil and a piece of proof, scrap or waste paper and send it to

Mac Sinclair

*Editor.*

# Who Is It?

## Head of greeting card house lithographic department, his inventions and offset-lith plate-making technique discussed

*By* ADAM HENRI REISER

COMPARATIVELY few persons are chosen by fate to contribute in large measure to the advance of an industry. Very few are equipped to play the part in such a program. Yet lithography has been particularly fortunate in having outstanding lights who have been responsible for its strides in the printing field.

Many years ago when photo-lithography was just another fad, just another hobby, a man with ideas built an aligning and registering vacuum frame. He also experimented with photography, the camera, chemicals, and the various methods by which a printing image might be obtained. In this field he obtained considerable knowledge and success, and being progressive and unselfish by nature, he shared that knowledge with others. Transferrers were taught the operation of the new machines, and made familiar with the newer chemicals of lithography. Later, this man deposited a coating of copper on glass and etched an image thereon. He sought in that manner to reduce dots by dot-etching and still retain an opaque printing point in the smallest pinpoint dot that had been reduced. Remember, then photographic film and dry plate had not been improved to its present state. Dot-etching on those early photographic materials often resulted in blind or broken dots totally unfit for the reproductive processes.

### Who Is It?

Today, that man, out guest *Who Is It?* after suffering the many setbacks that seem to be the inherent lot of most inventors, stands at the helm of the lithographic department of one of the largest complete greeting card manufacturers in the East. This concern, Rust Craft Publishers, Inc., is known for its fine quality greeting cards. Lithography is used to produce them in 200-line halftone in the deep-etch manner.

A visit with out guest is productive of a feeling of intense interest in the lithography of today. For there at Rust Craft, our guest has harnessed the modern lithography, exemplified in production methods that are interesting. Let's examine them. They furnish clues to the identity of our guest. They are also interesting in their application.

To appreciate the immense volume of work handled yearly at the plant, consider the 40,000 sketches received in the department during the year. Breaking that number down, it shows one sketch handled nearly ever hour during the double shift. That calls for exceptional production methods.

### Photography and Correction

The first step, the color separation negative, is made on a Cramer dry plate with a ground glass or matte finish. It is a continuous tone negative upon which correction is made with pencil, stump, etc. From this, a camera positive is made in halftone, the 200-line screen being used. It is also made upon the same matte form of dry plate, our guest's masking device being used to obtain most of the correction. This device, a book cover form of registering dry plate holder, was described in the September issue of *The Lithographers' Journal*, by Ben Blocker, the chemist at Rust Craft. By its use much retouching time is eliminated in making the first screen positive and the technique of the original retained. Dropouts are possible with this masking device, through making use of *two negatives*. A tight or contrasty negative held in the movable cover of the book, may be combined with an open negative held in the anchored side. These are registered to fit each other.

### Editor's Note

*This is the first of a new series of articles by Adam Henri Reiser. It is the intention of* Printing Equipment Engineer *to bring you some rather interesting articles concerning personalities associated with the offset-lith process. At first glance, it may appear these articles are biographical in nature, but this is not true. Considerable technical material about offset-lith plate-making and printing press procedure will be presented by Mr. Reiser.*

Exposure may be controlled by shooting through both negatives held in perfect register, and then an additional exposure when the cover is opened, shooting through only one negative, thus making possible a wide range of tones in addition to a varied number of results.

When the first halftone positive is made, it is dot-etched, and when this positive is finished, a contact negative is made from it. The final positive is made from this negative also by contact. The last two steps are made on film with the same matte finish carried by the dry plates.

Why does our guest use this matte finish on all photographic material throughout his process? Why not use regular film or dry plate for all but the first step where it might be necessary to use the ground glass back to hold pencil and stump graphite workings? Its use is essential, to prevent distortion in such fine screen values of 200-line halftone, distortion that may be brought about by Newton rings in contact printing.

In greeting card work, small parts of many subjects often are combined to form one new design. Ingenious use is made of our guest's registering device on the aligning vacuum frame, for purposes of piecing these parts together, so that each color for every part will register perfectly. With proper masking and surprinting, many pieces can be made to register perfectly on the same subject. Lettering may be superimposed wherever needed. It brings to mind the many novel so-called trick shots used in the movies. And yet, as our guest so aptly remarks, "There is nothing new to this principle; it merely goes back to the procedure of early lithography when the hand transferrer pieced together numerous patches."

In retouching negatives for this process it is wise never to attempt complete dropouts. Solid parts or solid lines are not worked entirely clear, for presswork with a 200-line screen induces a natural growth in the three-quarter and heavier tints, which then make a pleasing appearance by simulating solids with no harsh contrasts. The same thought is borne out in correcting the screen positive. However, special subjects may make a deviation from this policy compulsory. The actual correction on the continuous tone and dot-etching of the screen positive is slight. This is attested to by the time spent on a set of separations and their positives.

### Stripping the Job

Now are you aware of our guest's identity? Well, then, here are some more clues.

When the final positives are ready for stripping, our guest's own method of stripping color work is used. A blue print on glass is made from a stripped-up key. This key very often must be made from a letterpress sheet printed in water color at the Rust Craft Co. Whenever solid areas in color are required, a rubber cut is run in water color inks on the type press as the first printing. The key is stripped up to fit this sheet, which is laid out upon the glass plate used as a base for the stripping operation.

There is an in-between step following the making of the key and the first blue print glass. A negative matrix, or red lac (it might be a black lac, too) as it is more familiarly known, is made from the key and then used as a negative from which the blue print glasses are made in positive. All of these prints on glass are made by coating the glass with the regular glue solution slightly varied to coat the glass evenly and firmly. This coating is whirled to the glass, dired and then exposed in a vacuum frame beneath the first key positive or the red lac negative when that is made. After exposure the print is developed under cold water, and dye applied; red for the red lac and blue for the blue print. It is possible

(*Continued on Page 46*)

### Use Non-Offset Spray Equipment Properly

THE Miehle Printing Press & Manufacturing Company has published a bulletin in which it is stated that the company's field service staff advises that printers using non-offset spray equipment on printing presses frequently experience unexpected troubles and extraordinary maintenance costs because of excessive spraying. These troubles, the company states, may be minimized by making sure of *minimum* spraying. Do not spray any more than absolutely necessary to prevent offset. Adjust the quantities of both air and fluid to the least amounts that will accomplish this result. Excessive spraying wastes the fluid.

The excess spray is of no value in preventing offset, but does lead to the following troubles: (1) The solidified fluid accumulates in bearings, clogs up the oil passages, and even dries up the oil. (2) Vacuum lines become seriously clogged, and pumps accumulate the sprayed materia! in quantities sufficient to put them out of commission. And (3) Motors and controllers are also affected.

This is only a partial list of the damage caused by excessive spraying.

# Equipment - Supplies

### Stainless Metal Printers' Rule

The Lufkin Rule Company is now making a stainless metal printers' hook-type rule. The rule is tempered and is flexible. Size, ¾ in. wide, 1/32 in. thick, 14½ in. overall length. Point measurements on this rule are said to be accurate type standard 0.996 in. per 72 points. Graduations are fine, sunken lines, and the figures are in black for easy reading. Manufacturer states rule is a machine divided precision gauge. Zero in all measurements falls just inside the T-head.

Graduations are as follows One side, upper edge 12 in. to 16ths, lower edge 6 and 12 pt., *i.e.*, 144 nonpareil and 72 pica lines. Other side, one edge is graduated 8 and 10 pt. divisions, and the other edge is graduated to 168 advertising agate lines. Total measuring capacity, 12 in.

*P-Double-E File No. 1N6.*

### Kem Lustral Enamel

The Sherwin-Williams Company has released a 24-page pictorial and technical report in color, on what is said to be one of the most interesting developments for wide industrial use in paint history. Report is called *From a Cleveland Laboratory*. New product described is S-W Kem Lustral Enamel, a finish that can be brushed, sprayed, dipped, air-dried or baked, and applied to wood or metal surfaces subject to exterior or interior exposure. For

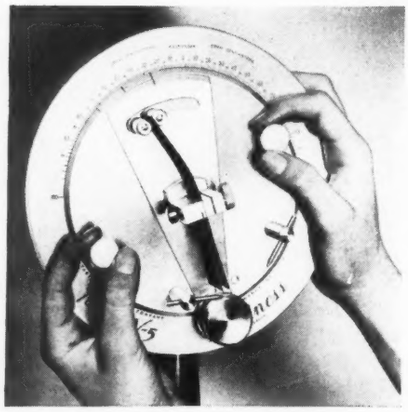
inside application, following uses are suggested: Finishing metal stairs, rails, tanks, machinery of all kinds, cabinets, pipes and pipe coverings, trucks, and machine tools of all kinds. Kem Lustral Enamel is built around a synthetic resin, is recommended for finishing tasks, ranging from a little toy or utensil to a municipal stadium. Supplied in twenty colors and black and white.

### Improved Taber Stiffness Gauge

Taber Instrument Company announces the improved Taber V-5 Direct Reading Stiffness Gauge for the accurate measurement of the stiffness quality of paper, light metallic sheet wire. Thickness capacity of the instrument for thin paper and foil specimens to be tested is 0.040 in. or 0.020 in. for metal.

Standard ranges are 0-10 (sensitive attachment), 100, 200, 500, 1000, 2000 gram-centimeters. Sensitivity, .05 gram-centimeter in 0-10 Gr. Cm. Range. Accuracy, guaranteed plus or minus ½%. Deflection, 15 deg. angle (standard). Height of instrument, 16 in.; depth, 6½ in.; width, 7½ in.; weight, 8 lbs. net.

A triple-cut shear is furnished for blanking out specimens, cut accurately to size and to insure against dimensional errors.



Theinstrument determines initial and normal stiffness of the material being tested. Elastic drift or "creep" of the specimen structure can be progressively recorded by observing the stiffness loss under sustained deflection. The compensating pendulum maintains its calibration regardless of varying weight of specimen. Standard cantilever length and deflection angle insure accurate and comparable test results. Metric calibration to international standard, continuous scale throughout all ranges from 0-2000 gram-centimeters.

*P-Double-E File No. 5U2.*

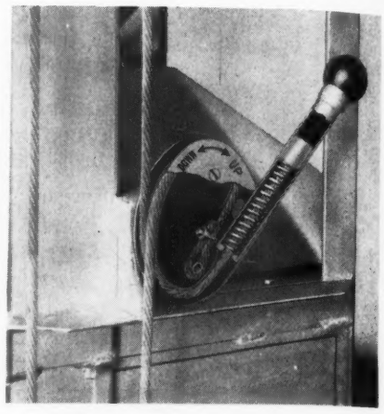
### Stacker Operating Control

The Lewis-Shepard Sales Corporation announces the development of a new type of paper and bundle stacker operating control. Effective immediately, all power-operated stackers will have this new control as standard equipment.

The new stacker control is contained in a dust-proof housing, is mounted on both sides of the stacker, which allows the operator to control the machine from either side.

The control handles are mounted on ball-bearings directly connected to the controller shaft. Illustrated control with cover removed shows how movement of the controller handle actuates the cable, exerting a straight up and down pull on it over a rolling contact. Because of the large radius segment, states manufacturer, little effort is required to operate the machine.

In hinged stackers, the control is self-adjusting, as the cable is automatically extended and taken up by a long spring within the controller handle. This eliminates the problem of loosening the hoisting cable when letting down top section.



*View of Lewis-Shepard paper and bundle stacker operating control.*

### Streamlined Vulcanizer

The growing acceptance of design for appearance values in the heavy-duty machine tool field, and the utilization of professional industrial design by engineering departments for modern styling and balanced correlation of operation features, is reflected in the lines of the Lake Erie Engineering Corporation's acraplate vulcanizer on which Lawrence Blazey of Designers for Industry, Inc., Cleveland, was design consultant. In every sense modern, the general appearance gives full

*Lake Erie's newly streamlined vulcanizer.*

expression to the factors of functional rigidity and accurate performance required for rubber plate work. The factor of sturdiness was emphasized by enclosing the base, which contains the hydraulic unit and controls, in sheet steel, this theme being further carried out in the side plates of heavy rolled steel.

The various operating controls have been allocated with a view to facilitating operation, work being illuminated by a light incorporated in the projection over the gauges. Gauge blocks are stored in a pocket under the table, readily accessible yet out of the way.

The design as discussed above has been incorporated in Lake Erie's Models 7 and 10 Acraplate Vulcanizers. These two models are intended for use in envelope work, rubber stamp making, and relatively small form commercial work.

Platen size of the No. 7 vulcanizer is 16 in. by 14 in.; ram diameter is 10 in.; stroke, 2 in.; working height, 42 in.; overall height, 60 in.; floor area, 22 in. by 34 in.; approx. weight is 2200 lbs.

Platen size of the No. 10 vulcanizer is 20 in. by 16 in.; ram diameter is 12 in.; stroke, 2 in.; working height, 42 in.; overall height, 62 in.; floor area, 29 in. by 38 in.; approx. weight, 3700 lbs.

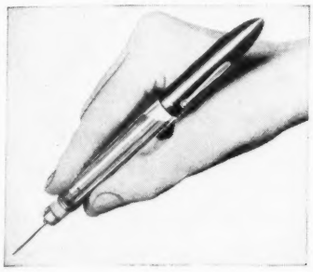
The average matrix material for rubber plate work requires approx. 200 lbs. per sq. in. pressure and average rubbers about double that.

Bulletin No. 238 illustrating Lake Erie's line of Acraplate Vulcanizers is available.

*P-Double-E File No. 2F3.*

## New Pres-To Oiler

Dill Mfg. Co. announces a new model Pres-to Oiler is now available for use in small openings up to 7/8 in. depth. A longer, more



slender point has been provided. By depressing the plunger point, the Pres-to Oiler delivers 1/10 of a drop of oil, or multiples, to the exact place desired. Smearing, dripping and excess oiling is avoided. Application may be made horizontally as well as downward. The improved oiling device is for use on printing equipment. For further information write The Dill Manufacturing Co.

## The Kelly Clipper

The Kelly Clipper, the letterpress in which, American Type Founders states, have been incorporated several features wanted by pressmen as expressed in the recent ATF Ideal Press Contest, was announced during the past month.

Some of the features as announced include speedy get-away, access to cylinder, quick-set feeder, stream feeding, pyramid ink distribution, accurate register, impressional strength and swing-away delivery.

The Kelly Clipper's speed range is said to be 300-5000 i.p.h. Largest sheet accepted is 14 in. by 20½ in. Smallest sheet, 3¼ in. by 5½ in. Inside chase size is 14¾ in. by 21 in. Complete roller coverage is 12½ in. Press will handle onionskin up to 4 ply (0.018 in.) stock. Feeder capacity is 15 in. Delivery capacity, 14 in. Floor space (open): 4 ft. by 8 ft. 4 in.; closed, 4 ft. by 6 ft. 6 in. Horsepower to drive, 3. Net weight, 4460 lbs.

Pyramid inking mechanism is used to assure a constant supply of well worked-up ink fed directly to the form rollers. Inking rollers are adjusted by pressman in standing position outside the press and minor adjustments may be made while the press is in operation. For wash-up, the inking mechanism is exposed when the feed board is raised.

The register mechanism provides accurate register. Adjustable drop-guides can be moved for delicate register changes without moving the form. Pull side guide with micrometer adjustment is provided for lightweight stocks. Sheets are completely visible at drop and side-guides during the run.

A rigid bed with heavy tracks is supported by one-piece column weighing 1300 lbs., manufacturer states, insures rigidity, and a substantial toggle device brings the cylinder down for powerful and even impression.

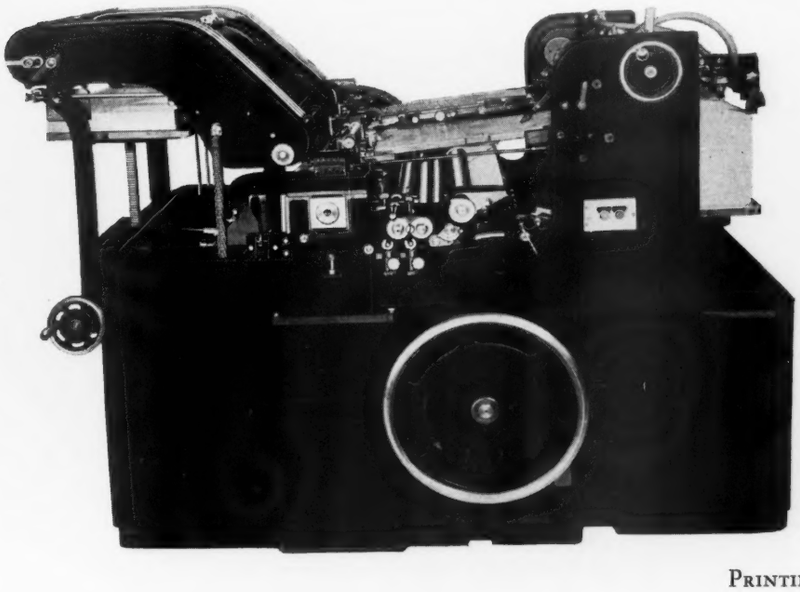
Stream feeding handles stocks from onionskin to 4 ply cardboard. Continuous stream of sheets are spaced to reach the guides at about one-fourth the press speed. Suction and blast control in full view of the pressman. Suckers lift the sheets at rear of the pile with backward heeling motion.

A single movement swings the delivery. The form slides on the bed so the pressman can stand erect with ample room to work.

One plunge of single-shot system forces oil to all main bearings.

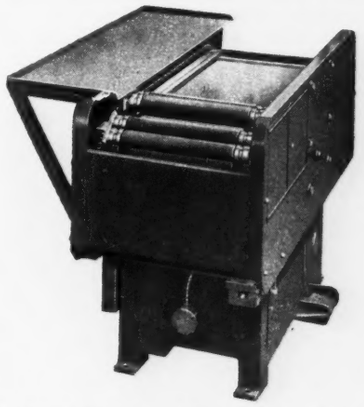
*P-Double-E File No. 5LL1.*

*ATF's Kelly Clipper—speeds: 300 to 5000 i.p.h. Said to have quick get-away.*



## Improved Proof Presses

The Nos. 23 and 22 Vandercook Electric Proof Presses, states manufacturer, have been improved to facilitate production. The No. 23 proof press is a high-speed production machine for proving tabloid newspaper, book



*Vandercook Electric Proof Presses, Models Nos. 23 and 22, have been improved to facilitate production of proofs.*

and catalog pages and other forms up to 14 in. by 27½ in. galleys. It will print 40 good proofs per minute. The control has been improved in such a way as to make it more convenient for the operator in handling the press. Operating speeds can be changed more easily and quickly. This affects not only the speed of operation but also controls the ink distributing drum to make its function more efficient. The foot pedal has been enclosed in a guard to prevent accidental starting of the machine.

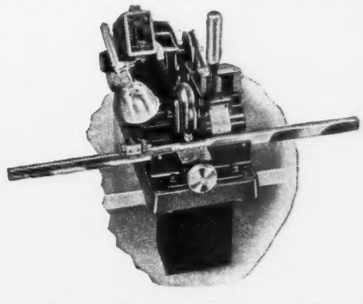
The No. 22 Vandercook Electric Proof Press, a similar press of smaller size, which takes forms up to 8 in. by 25¾ in., has also been improved. Its capacity is also 40 proofs per minute. This machine is used extensively for proving type in galleys as delivered from the composing machines.

Further information respecting the Nos. 22 and 23 proof presses may be obtained from Vandercook & Sons, Inc., direct, or in care of *Printing* EQUIPMENT *Engineer.*

*P-Double-E File No. 1V1.*

## Economy Model Rotary Miterer

H. B. Rouse & Co. announces what has been named Economy Model Vertical Rotary Miterer. This machine is made for smaller newspapers and printing plants that do not require the full capacity of the Master Model



Rouse Vertical Miterer. The new model cuts 700 miters an hour direct from strips. It takes rules of all thicknesses up to 24 points. It will miter hairline face rules. The new miterer is practically identical in operation to the Rouse Master Vertical. Mitering accuracy is the same. Complete information can be obtained from the manufacturer.

*(Continued on Page 26)*

THE WEATHER
Today: Cloudy and warmer, followed by intermittent light rain
Tomorrow: Generally fair, little change in temperature
Temperatures Yesterday: Max., 52, Min., 39
Detailed Report on Page 25

NEW YORK
# Herald Tribune
LATE CITY EDITION

THURSDAY, MARCH 9, 1939

THREE CENTS
New York City and Vicinity

VOL. XCVIII No. 33,716

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## House Passes Bill to Merge U. S. Bureaus

**Compromise Measure on Reorganization Wins, 246 to 153, After Fight**

**3 Railroad Boards Exempt From Plan**

**Bill Calls for Vote of Both Houses to Annul Orders by President**

*From the Herald Tribune Bureau*

WASHINGTON, March 8.—The House of Representatives passed the compromise government reorganization bill early tonight after the Democratic leadership, fighting with its back to the wall, managed to maneuver a reversal of the previous day's adverse vote on an amendment which leaders said would have "killed" the bill. The vote on final passage was 246 to 153.

This amendment, offered by Representative Hatton W. Sumners, Democrat, of Texas, chairman of the House Judiciary Committee, would have permitted disapproval of any Presidential reorganization order by a vote of either House of Congress. The bill as passed requires adoption by both houses of an adverse concurrent resolution, if a reorganization plan is to become effective, sixty days after submission.

The fight on the Sumners amendment, first adopted by a teller vote of 174 to 158 only to be overturned by a roll call of 209 to 193, was the high light of nearly eight hours of turbulent debate, at times tense, at times comic, in the last day of Congress when the House reconsidered the omnibus reorganization bill by a vote of 304 to 106.

**Bill Narrowly Escapes**

Only the intervention of Speaker William B. Bankhead, a speech by Majority Leader Sam Rayburn and the work of Representative Patrick J. Boland, Democratic whip, in rounding up absentee Democrats on the record vote, prevented the bill from "emasculation," as Speaker Bankhead described it, and from "destruction," as Rayburn said.

The Speaker, who left the chair to vote, previously had forced Representative Sumners to acknowledge that he favored the amendment as a matter of "Congressional policy" and not that he thought the House should procedure for vetoing the President's proposals would be "unconstitutional."

It was just as constitutional, Representative Sumners said, to provide for action by one house as by both houses—in a concurrent resolution—as he explained did not make a law. "It is a question of policy and not of constitutionality," the Texan said in reply to Speaker Bankhead and Representative Rayburn, who were trying to stem the Democratic tide running in Mr. Sumners's favor.

Before the final passage the House, by a vote of 236 to 163, rejected a motion by Representative John Tabor, of New York, ranking Republican on the reorganization committee, to recommit the bill with instructions to report it back with an amendment to provide for "affirmative" action by Congress before any reorganization plan is made effective. This is the procedure now in effect in the Senate version of the reorganization bill sponsored by Senator Harry F. Byrd, Democrat, of Virginia.

**Rail Boards Exempted**

Out of a series of more than thirty amendments offered throughout the day, only six amendments were adopted, most of them perfecting amendments along the lines of the Byrd bill and accepted by the reorganization committee.

One of the amendments, Mapes offered from the Democratic side, however, and directed at the list of agencies exempted from reorganization, proved vexing to the proponent of the leaders.

Offered by Representative Robert Crosser, Democrat, of Ohio, to exempt the Federal agencies dealing with railroads and railroad labor beyond Presidential tampering—the National Mediation Board, the Railway Labor Adjustment Board and the Railroad Retirement Board. It was adopted, 236 to 160.

Declaring that the Bituminous Coal Commission has spent $1,000,000 and accomplished "nothing," Representative Robert G. Allen,

(Continued on page 6, column 2)

**Sales Jobs Open Today**

Many opportunities in the field of selling [illegible]

*At White House on Aid for Brazil Is Reported*

Osvaldo Aranha (left), Brazilian Foreign Minister, who is in Washington on a special mission, and Carlos Martins Pereira e Sousa, new Ambassador, calling at the White House yesterday

Associated Press photo

## Hopkins Sees '39 U.S. Income Up Six Billions

**Renews Promises to Help Business and Works With Treasury for Tax Relief**

*From the Herald Tribune Bureau*

WASHINGTON, March 8.—Forecasting an increase in national income of between $6,000,000,000 to $6,000,000,000 in 1939, Secretary of Commerce Harry L. Hopkins today told business that he was working "to carry into effect all the planks" he made in his Des Moines business appeasement speech last month.

If the national income rises between six to eight billion dollars as it will be close to the New Deal high of $78,000,000,000 reached in 1937, and more than $30,000,000,000 above the depression low of 1932.

In the course of his press conference Secretary Hopkins disclosed that he had a series of discussions with Under Secretary of the Treasury John W. Hanes concerning changes in the tax laws which might remove deterrents to business. "I can say that Johnny Hanes and I have a substantial meeting of minds," the Secretary said.

Meanwhile, the drive for changes in the tax laws advanced another step as Secretary of the Treasury Henry Morgenthau Jr. and Mr. Roosevelt today preparatory to submitting tax data and suggestions to the Senate Finance and the House Ways and Means Committees.

Both declined to disclose the nature of their conferences with the

(Continued on page 26, columns 6)

## A.F.L. and C.I.O. Resume Parley Here Tomorrow

**Former Still Firm Against Lewis Formula, but Will Consider It for Debate**

*From the Herald Tribune Bureau*

WASHINGTON, March 8.—The American Federation of Labor peace negotiating committee stood firm today in its disapproval of John L. Lewis's proposal that they bring unity to the labor movement by joining the Congress of Industrial Organizations and the four railway brotherhoods in one big union.

The net result of a second conference held today at the Department of Labor was an agreement to resume negotiations in New York at 9 p. m. Friday.

The Federation's negotiators said that Mr. Lewis's plan, which was sprung at the initial meeting of the two committees with President Roosevelt yesterday, would receive consideration along with any other plans that might be proposed. The Federation spokesman said privately, however, they had not receded from the position set forth in a formal statement last night that the Lewis plan offered no acceptable basis for agreement.

The Federation's willingness to consider the Lewis plan, it was said, was a marked concession to the C. I. O. group, who had served notice that there could be no hope of a settlement unless the A. F. of L. negotiators consented to a discussion of all plans submitted by either side.

In the Federation camp the Lewis

(Continued on page 9, column 1)

## Summary of Today's News

**FOREIGN**

Madrid "peace" regime reports defeat of Communist revolt. Page 1
Text of Communist revolt. Page 1
Britain to send 10 divisions to aid France in event of war. Page 1
Raid of the Jews in Germany and flight of refugees to America. Page 1
France is told U. S. will take only 300 refugees from Spain. Page 4
Chamberlain and Ribbentrop confer on Mexican oil seizures. Page 5
Britain backs China in new currency war with Japan. Page 6
Britain will import plan of all Arab-dominated Palestine Page 7

**WASHINGTON**

House passes compromise re-organization bill by 246 to 153. Page 1
Senate peace parley to move here as A. F. L. stands firm. Page 1
Hopkins sees six to eight billion gain in 1939 U. S. income. Page 1
Army reports spinning $30,000,000 U. S. loan for Brazil Page 1
Strikers picket thirteen Woolworth stores after walkout. Page 9
Ten hotels affirm neutrality laws. Page 9
Bill to repeal all neutrality laws is promised in Senate. Page 10
Harold D. Smith, of Michigan, named director of Budget. Page 11
Conference bill provides twelve banks to aid little business. Page 11
Tydings calls chain clearance "Nazi socialism, extravagant." Page 26

**ALBANY**

Bipartisan bills to curb Reds sought by Governor. Page 5

**NATIONAL**

Martin defies threatened revolts over committee policy. Page 9
Samuel T. Hudson, president of Bank of the U. S., dies at 70. Page 15

**MARINE AND SHIPPING**

Incoming, outgoing shipping. Page 28
Panama firm wins on $170,000 bid to recondition U. S. transport. Page 28

**SPORTS**

C. C. N. Y. and St. John's win Garden basketball games. Page 31
Homer by Dorschner wins practice game at Dodgers' camp. Page 31
Drema Lodge leads Florida Open at Tropical Park. Page 31
Sutherland may quit tournament after consecutive All-Stars. Page 32
Down in front, by Stoneham. Page 32

**CITY AND VICINITY**

Drewry gets delay in Hines sentence; waits on Pecora. Page 1
Truck breakdown delays painting of first Fifth Avenue elm. Page 1
Six persons indicted in $600,000 copper stock swindle. Page 1
Mayor urges political unity in U. S. against foes of progress. Page 8
Birthday party given for Frederic W. Goudy, type designer Page 12
N. L. Rogge, marine band of 8 J. Standard Oil, dies at 58. Page 16
Judges for children's prize spring contest announced. Page 17
LaGuardia says prices will remain normal here during Fair. Page 20
Bishop Manning to open Nave of St. John's Cathedral Sunday Page 21
McGillycuddy bans private vehicles of Park Department rest." Page 25

**Books and Things**, by Lewis Gannett. Page 17

Bridge. Page 17
Fashion and food news. Page 13, 14, 15
Drama and music. Pages 19, 20
Society and resorts. Page 22
Today's calendar of events. Page 25
Army and Navy orders. Page 25
Detailed weather report. Page 25
Real estate market news. Page 26
Radio programs. Page 16
Obituary articles. Page 15

**EDITORIALS AND MISCELLANY**

Page 18

**Today and Tomorrow**, by Walter Lippmann. Page 18
Mark Sullivan. Page 21
The Bridge Deck. Page 21
H. T. Webster's cartoon, "Mr. and Mrs." Page 21
Short story. Page 21
Cross-word puzzle. Page 21

**FINANCIAL MARKETS**

Page
Wall St. comment. Page 27
Stock quotations. Page 28
Bond dealings. Page 27
Curb dealings each hr. Page 27
Business records. Page 27
Finance notes. Page 27
Stocks spurt 1 to 5 points as volume increases. Page 27
Portfolio value reduced sharply by Treasury Corp. Page 27
Prices of the day in business. Page 28
News in advancing field. Page 28
Commodities. Page 28
Curb bond list. Page 28
Unlisted securities. Page 28
Bank stocks. Page 28
Other cities. Page 28
Odds regis'n. Page 28

## $20,000,000 U. S. Loan to Brazil Slated

**Aranha Reported Gaining Long-Term Credits as Month Talks End Today**

**Trade Spurt Seen When Terms Are Set**

**Export-Import Bank May Help Rescue Market From Reich and Italy**

*By The Associated Press*

WASHINGTON, March 8.—One month of conversations between the Brazilian Foreign Minister, Oswaldo Aranha, and Administration leaders will come to an end tomorrow with far-reaching agreements expected to be announced.

It is learned that Aranha will take back to Brazil with him when he sails Friday assurances of:

Credits for about $20,000,000 with which to free Brazil's frozen exchange and to permit Brazilian importers to make up-to-date payments on United States goods imported into that country.

Credits from the Export and Import Bank to finance future exports from the United States to Brazil.

Aranha has pointed out several times during his visit here that German and Italian exporters are getting business in Brazil by advancing long-term credits, whereas United States business men demanded immediate or very short-term payment.

He will likewise have in his pocket, figuratively, an agreement for the creation of a central reserve bank in Brazil. This is expected to operate through co-operation of the United States stabilization fund.

Brazil will be able to obtain greater stability of its national currency in relation to foreign exchange.

Aranha and Sumner Welles, Under Secretary of State, worked tonight on the statement they will issue tomorrow outlining the conclusions reached during Aranha's visit.

Aranha discussed with various United States officials the possibility of agreeing to restrict Brazil's cotton crop in exchange for concessions from the United States and also the development in Brazil of so-called "complementary products" which would not compete with United States products and could be sold here. The most important of these is rubber.

President Roosevelt, who gave a luncheon for Aranha today, said of him: "Dr. Aranha has won the friendship and esteem of all who have had the privilege of knowing him, and we wish him a safe and pleasant journey back."

Preceding the White House luncheon, President Roosevelt received Carlos Martins Pereira e Sousa, who presented his credentials as the new Brazilian Ambassador.

The new ambassador lauded the President's efforts to maintain world peace "in the present conditions when troubled days awaken distrust, austerities and fasts." He expressed Brazil's admiration and support of Mr. Roosevelt's "moral grandeur."

The President in reply declared the visit of Foreign Minister Aranha was the way in this country exemplified the way in which the "mutual desire for co-operation" between the United States and Brazil "has found practical expression."

He assured the new envoy this government was determined to preserve the ideals and aspirations which serve to both nations, "to uphold the rule of international law, order and peace."

## Half the Jews In Reich Beg For U.S. Visas

**240,000 Applications on File, With Every Quota Filled for Many Years**

**Throng Tramples Consulate's Guard**

**Double Patrol After Riot; Swindlers Do Big Trade in Worthless Receipts**

By Joseph Barnes

*From the Herald Tribune Bureau*

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BERLIN, March 8.—The daily line of Jewish applicants for American visas filed into the United States Consulate General here today past two policemen stationed at the usual one as a result of a minor riot yesterday in the vestibule. The single policeman on duty yesterday was knocked down and trampled, but not seriously hurt, when a crowd twice as large as could be admitted tried to enter the consulate.

Four months after "Black Thursday," Nov. 10, when the Nazi persecution of Jews developed into direct mass violence, there is no let-up in the pressure on this submerged fraction of the German population to escape. American consular officers, it was learned today, received to date 240,000 visa applications—half the estimated Jewish population of Germany.

Although persons applying are told frankly that there is little hope even for consideration for more than five years, it now appears that the daily crowd at the American consulate and the daily crowd at the American officials belie reports that applications are likely to form a census of the Jews in Germany.

The American quota for persons born in the Reich, including but not the Sudeten area, is 27,370. Other quotas for persons born in some Reich Jews are even smaller. One Hungarian Jew, it was told that he only in Berlin's share of the quota only eighty-s now.

Application receip American Consulate an almost fabulous harassed Jews, eve post-dated many y no promise that t be refused. Advertis cently appeared Nachrichtenblatt" newspaper still u ing to sell receip bers. The receipt also as that the swindle.

Some of the persons of Germany are n from their pre by being connec circular sent to of commerce th Labor Bureau to prepare Jews can be us labor shortage

Although th earlier Nazi employers we all Jewish e signify any b Jewish age, against Streicher's "- ed today that all buses a other Germ laws reinst been direc from the money whic female bl wide and prose."

## Miaja Routs Communists In Fierce Madrid Battle; Franco Blockades Coast

**Tanks, Artillery, Machine Guns Repulse Foray Into Heart of Besieged City**

**Leaders of Revolt Reported in Flight**

**Nationalists Threaten to Sink Any Ship Within 3 Miles of Loyalist Coast**

The Spanish situation:

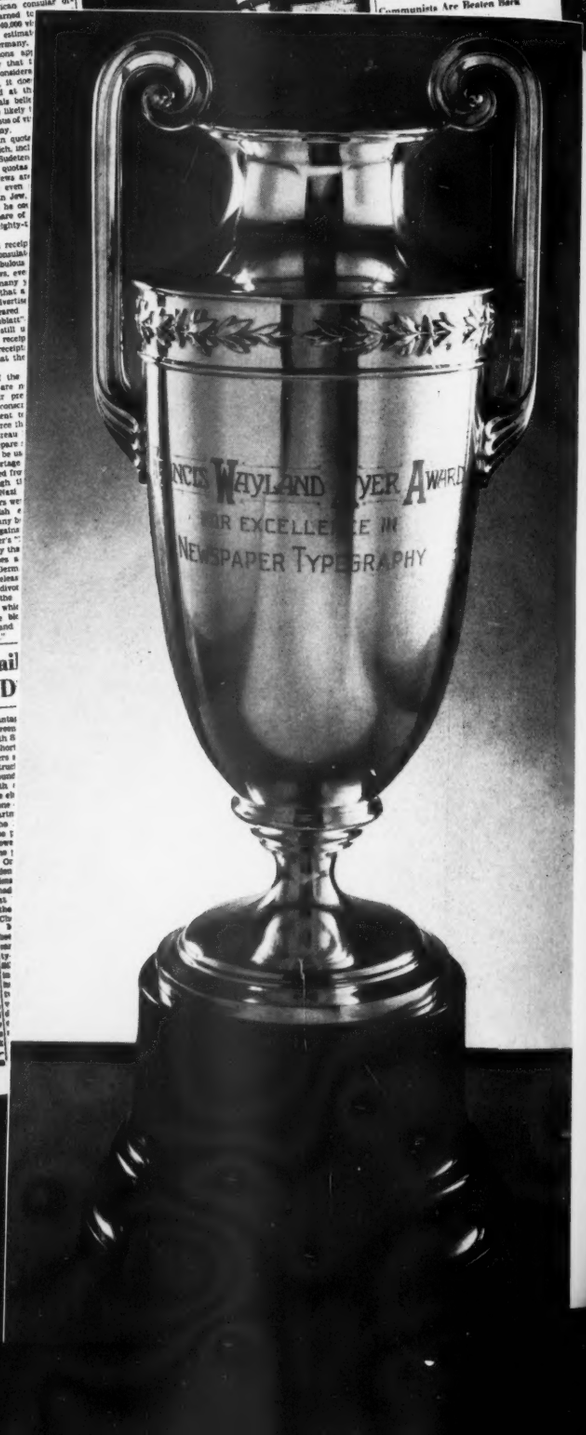
Gen. Miaja's "peace" regime at Madrid drove back its Communist foes after bitter street fighting, and said the back of the revolt had been broken, but some fighting continued.

Nationalist Generalissimo Franco proclaimed a blockade of the loyalist coast, threatening to sink any ship of any nationality which approached within three miles.

French officials struggling with the problem of 450,000 Spanish refugees in France said the United States had declined to receive more than 352 of them—the quota figure.

**Communists Are Beaten Back**

## *Britain Will Send 19 Divisions To France at Outbreak of War*



HATS OFF TO—

# NEW YORK HERALD TRIBUNE

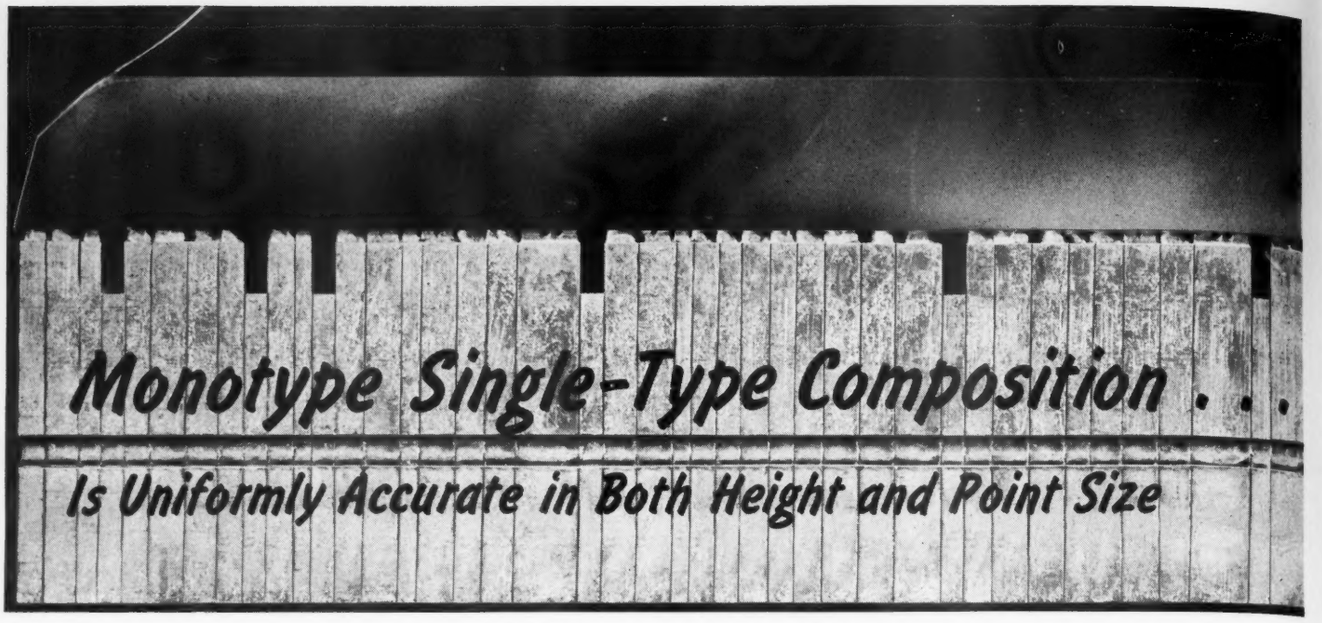
## FOUR TIME WINNER *of* FRANCIS WAYLAND AYER AWARD

We firms listed below whose products are in use in the New York Herald Tribune, not only doff our hats to this great newspaper for this magnificent achievement, but also applaud the skill of its staff of able production executives:

| | |
|---|---|
| A. H. Burns | Mechanical Superintendent |
| I. T. Bardsley | Composing Room |
| W. A. Thompson | Stereotype |
| A. T. Kuhn | Press Room |

Signed:

| | |
|---|---|
| **E. W. BLATCHFORD COMPANY** | Stereotype Metal |
| **GREAT NORTHERN PAPER COMPANY** | Newsprint |
| **J. M. HUBER, INC.** | Ink |
| **MERSEY PAPER COMPANY, LTD.** | Newsprint |
| **NEW ENGLAND NEWSPAPER SUPPLY CO.** | Press Blankets |
| **NILES & NELSON, INC.** | Goodrich Printing Rollers |
| **PITTSBURGH WHITE METAL COMPANY** | Linotype Metal |
| **POWERS PHOTO-ENGRAVING CO. (POWERS REPRODUCTION CORP.)** | Engravings |
| **WALTER SCOTT & COMPANY** | Scott 6 Unit Straight-Line Presses |
| **WOOD FLONG CORPORATION** | Wood Dry Mats |

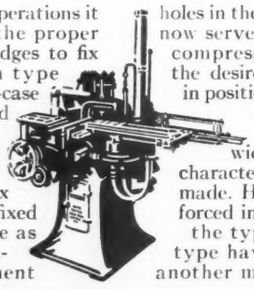



To the uninitiated, the Printer's World is at once confusing and fascinating. The words are swiftly transformed from the copywriter's notes to the *Very few type faces of today are designed for their beauty alone. Yet, the beauty in type design cannot by*

↑ ***Kerns Fit Letters Closely***

***Some Normal "f" Combinations*** ↓

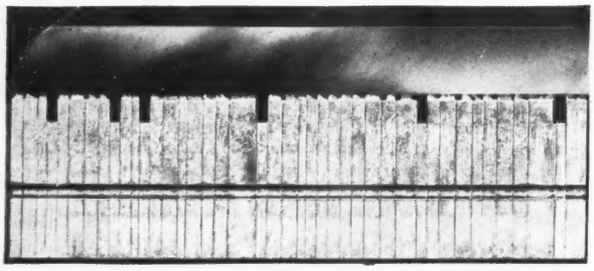
fa fc fo fr fs ft fu fy f. f, f- ffa ffe ffo ffr ffs ffy
ff. ff, ff- *af ef of rf sf tf uf aff cff off rff sff uff*



type-caster begins operations it is equipped with the proper point-size mold, wedges to fix the width of each type body, and a matrix-case in which are placed matrices representing the various letters and figures desired. Each matrix has predetermined fixed position in the case as indicated by the matrix-case arrangement

holes in the controller paper now serve with the aid of compressed air to place the desired matrix direct in position over the opening in the mold and to fix the width of body of the character or space to be made. Hot metal is then forced into the mold and the type formed. The type having been cast, another matrix goes into

↑ ***Letter-Spaced at Keyboard***



↑ ***No High Nor Low Letters in Entire Line***

## Single Types May Be More Closely Fitted . . .

The close-fitting characteristic of all faces composed on the Monotype Typesetting Machine is one of the natural results of casting letters singly, each on its own body, independent of other letters or characters. When desired, the fitting of an entire font may be made closer than normal by reducing its set size, which is done by the Monotype Keyboard operator.

*This is an EXCLUSIVE MONOTYPE FEATURE*

## Letter-Spacing Easy at Keyboard or by Hand . . .

Letter-spacing of Monotype single-type composition can be done either by the operator at the keyboard, or by hand after the type is cast—whichever is more economical or expedient. When done by the operator at the keyboard, the same amount is automatically and uniformly added to the width of the body of all characters.

*This is an EXCLUSIVE MONOTYPE FEATURE*

## Each Character Uniform in Height and Point Size . . .

The height-to-paper and the point-size of the body of each character in Monotype single-type composition are determined by one factor only—the dimensions of the mold opening. Therefore it necessarily follows that each and every type must be of the same exact height and point-size, with no high nor low letters over the entire length of each and every line.

*This is an EXCLUSIVE MONOTYPE FEATURE*

# LANSTON MONOTYPE MACHINE COMPANY . .

This Advertisement Composed in Monotype Type Faces

## Several Columns Can Be Justified in Same Line . . .

In the Monotype method of single-type composition, the width of the body of each and every character in the die-case (or magazine) is fixed and invariable, and is known to the operator. This knowledge makes it possible to set single justified lines made up of several different columns of words or figures, each of which may be justified within itself.

*This is an EXCLUSIVE MONOTYPE FEATURE*

| | | | |
|---|---|---|---|
| 1. Hemp Seed, Hungarian Seed, Broom Corn, Pop Corn Seed, and Castor Beans, carloads | St. Louis, Mo. | *XX* | 17 |
| 2. Flax Seed and Millet Seed, carloads | Chicago, Ill. | *XVII* | 210 |
| 3. Wheat, Wheat Flour, Rolled Oats, Oatmeal, Whole Wheat, Chops, Buckwheat Flour, | Minena, Minn. | *XIV* | 614 |
| 4. Corn Flake, Maize, Farina, Curdline Flour, Rye Flour, | Joda, Tenn. | *XX* | 41 |

↑ ***Multiple Justification***

## Faces May Be "Opened" or "Closed" as Desired . . .

The normal set-size of each type face composed on the Monotype may be either reduced or increased at the will of the operator. Thus, type faces may be made to fit more closely than normal by reducing the body size of each character, or be "opened up" by increasing the body size of each character and thus adding to the white space between letters.

*This is an EXCLUSIVE MONOTYPE FEATURE*

An operator of the keyboard does not actually set type or print letters or other characters. What he does is to strike keybuttons on the keyboard and thus make perforations in a long strip of paper

↑ ***Normal Set***

***Closed ¼ Set*** ↓

An operator of the keyboard does not actually set type or print letters or other characters. What he does is to strike keybuttons on the keyboard and thus make perfora-

An operator of the keyboard does not actually set type or print letters or other characters. What he does is to strike keybuttons on the keyboard and thus make perforations in a long strip of paper

↑ ***Normal Set***

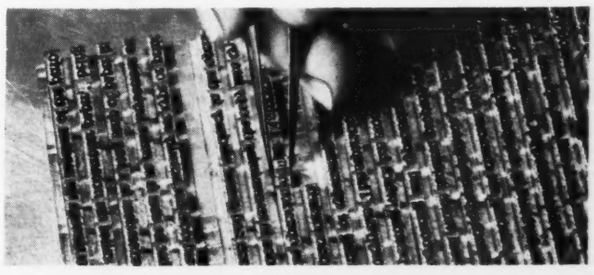
***Opened ½ Set*** ↓

An operator of the keyboard does not actually set type or print letters or other characters. What he does is to strike keybuttons on the keyboard and

## Corrections or Changes Are Easily and Quickly Made . . .

Corrections of Monotype single-type composition are easily and quickly made; characters are removed or changed by hand, or the matter is reset by machine, whichever method is more economical or expedient at the time the work is done. It is thus not necessary to reset an entire line to make a simple correction.

*This is an EXCLUSIVE MONOTYPE FEATURE*



↑ ***It's Easy to Make Corrections in Single-Type Composition***

**. . TWENTY-FOURTH AT LOCUST, PHILADELPHIA, PA.**

# Paper Problems

*By* Letter P. Offgrav*

## Bond Paper Behavior

*My greatest trouble in paper is with bond paper in that certain grades of it curl more than I think it should; also the very wide difference in finish on the two sides of the sheet. Of course, the paper men use the old alibi that your room is too hot, but in defense I might say that many times I receive a skid direct from the mill and put it right on the presses and the stock is curled before we hardly get it unpacked.*

WITH reference to the difference in finish between the two sides, all paper shows some difference, bond as a rule more than some others. This is due to the character of the fibers necessary to give the usual bond quality to the paper. Whether or not there is an excessive difference in this instance cannot be determined from the question.

Judging from the tone of the question it seems that the curl is probably due to the paper and the pressroom atmosphere not being in balance with respect to relative humidity. Paper contains moisture and so does the pressroom air. If the two are not in balance, the paper either takes on or gives off moisture. Unless the pressroom is humidified in some manner, curl is a frequent occurrence in winter months when the relative humidity of the pressroom may at times be as low as 10%. If you do not control the humidity to some extent, then you can expect curl.

The fact that the pressroom is too hot does not have as much bearing on curl as does differences in relative humidity. Wide differences in temperature between pressroom air and paper will cause the moisture to evaporate from the paper even more rapidly than if the paper has been allowed to come up to pressroom temperature before it is opened. This is due to the fact that the same amount of water in paper gives a higher relative humidity at lower temperatures than at higher ones. That being the case, the cold paper actually has a higher relative humidity than it would have if it were warmed up. With pressroom relative humidity low, this makes the difference between the two greater. Hence, your defense of the "old alibi" is definite proof that it is a fact and not an alibi at all.

**Another in a series in response to problems propounded by mechanical and production executives in a questionnaire sent out by* Printing Equipment Engineer. *Mr. Offgrav will reply to additional problems in future issues.*

**Linotype's Caledonia Announced**

Caledonia, a new printing type which has been cut in 8, 9, 10, 11 and 12 pt. sizes, has been announced by C. H. Griffith, Vice President of Mergenthaler Linotype Company. Caledonia was designed for Mergenthaler Linotype Company by W. A. Dwiggins.

Here is a brief showing of the new Linotype Caledonia *with italic* and SMALL CAPITALS in the 11 point size. How is one to assess and evaluate a type face in terms of its esthetic design? Why do the pace-makers

A booklet issued by Mergenthaler contains a note by Mr. Dwiggins on the design of Caledonia. Says he: "The effort that matured into Caledonia started with a strong liking for the Scotch Modern face . . . the face was christened Caledonia because the project was inspired in the first instance by the work of Scotch typefounders. The face as it emerges is not at all like Bulmer's Martin nor like Wilson's Scotch, but it has a touch of both of them in spots."

Another note by H. Puterschein on the designer and a variety of settings of Caledonia in several sizes complete the booklet which may be secured from Mergenthaler Linotype Company direct or through any of its agencies.

## *Men and Things*

Frank S. Barr, formerly with Dayton Rubber Manufacturing Co. is now associated with Geo. H. Morrill Co., Div. General Printing Ink Corporation, in capacity of Service Engineer, Roller Dept. His address is Suite 7-179 Merchandise Mart, Chicago.

Herb Lind, formerly chief composing room machinist with the Youngstown *Vindicator* is now serving in a like capacity with the Cleveland *Plain Dealer*. Formerly, Mr. Lind was a field service man for Intertype Corporation.

New and original equipment of masculine gender was installed during the latter part of April in the establishment of Mr. and Mrs. Edgar Flint. We understand much satisfaction is already experienced since the installation was made. Edgar Flint is Sales Manager of the Howard Flint Ink Company.

Les Sprunger, composing room superintendent of J. W. Clement Company, Buffalo, N. Y., passed away March 23, after a seven-week illness with pneumonia. Mr. Sprunger was Third (Niagara) District Representative for the International Association of Printing House Craftsmen, and was a former president of the Buffalo Club of Printing House Craftsmen.

John Knox, formerly composing room superintendent, has been appointed plant superintendent of the recently expanded plant of the Caxton Printing Company, Cleveland. William Adamson is now serving in the capacity of composing room superintendent.

John R. Riddell has retired as principal of the London School of Printing. His son, Dr. George L. Riddell, is Director of the Printing and Allied Research Association of Great Britain.

Ed Thie succeeds Les Sprunger as composing room superintendent of J. W. Clement Company, Buffalo, N. Y.

Frank A. Hill, Intertype representative, passed away at his home in St. Louis on Saturday, March 18. Interment was at Highland Park Cemetery, Ill. Mr. Hill in his 80-odd years, had a long career in and about St. Louis.

# *Paper by Champion*

## THE FOUNDATION FOR GOOD PRINTING

### *Coated Paper*

Hingefold Enamel
Satin Proof Enamel
Satin Refold Enamel
Hamilton Enamel
Falcon Enamel
Namelo Coated
Colorkote Enamel
Wedgwood Coated Offset
All Purpose Litho

### *Dull Coated Paper*

Dullofold Coated
Falcon Semi-Dull Coated

### *Coated Cover*

Hingefold Coated Cover
Satin Refold Coated Cover

### *Uncoated Paper*

Garamond English Finish
Garamond Super
Garamond Text (Wove and Laid)
Lexicon English Finish
Lexicon Super
Lexicon Antique
Format English Finish
Format Super
Canton English Finish
Canton Super
Celopaque Catalog
Wedgwood Offset (Reg. & Fancy Fin.)

### *Envelope Paper*

Radiant White Envelope
Chamfico Colored Envelope
Skyland Colored Manila Envelope
Ciscraft (C1S)
No. 1 Manila Envelope
Canton Manila Envelope
Foldur (White Kraft) Envelope
Ne'er Tear Envelope
Sun-Tan Kraft Envelope
Canton Kraft Envelope
Kraft Ambertone Envelope

### *Bond, Mimeograph, Ledger*

Ariel Bond
Canton Bond
Scriptic Mimeograph
Trucopy Mimeograph
Ariel Posting Ledger

Not only Enamels, but

## *All these* are CHAMPION

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So successful is Champion as a maker of quality coated papers that some buyers fail to realize that enamel is only one of *many* Papers by Champion.

This Company today produces a wide assortment of standard grades, as well as a large volume of technically developed papers for many special purposes.

Whatever your requirements, use Champion paper for your next job. The extra value will please you and your customer. Let your paper merchant give you the story of the complete Champion line.

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### *Coated Board*

Miami Coated Blanks
Miami Coated Carsign Blanks
Miami Coated Tough Check
Miami Coated Railroad Board
Brisefold Coated Translucent

### *Coated Postcard*

Ariel Enamel Postcard
Parian Dull Coated Postcard
Campaign Postcard
Falcon Postcard

### *Uncoated Board*

Hy-Plane Blanks
Hy-Plane Uncoated Railroad
Double White Signboard
Poster Blanks
N. B. Blanks
Inventory Index Bristol
Ticket Bristol

### *Uncoated Postcard*

Cream Government Postcard
Hamilton Postcard
Canton Postcard Bristol

### *Tag Board*

Tuf Tear Tag
"C" Document
Dixie Document
Franklin Document

### *Pressboard*

Champion Pressboard
Imitation Pressboard

### *Cover*

Cordwain Embossed Cover

### *Specials*

Tablet Papers
Drawing Papers
Butter Carton & Liquid Container
Milk Bottle Stock
Cup Stock
Red Patch Stock
File Folder
Stencil Board
Pattern Board

## THE CHAMPION PAPER AND FIBRE CO., *Hamilton, Ohio*

MILLS AT HAMILTON, OHIO . . . CANTON, N. C. . . . HOUSTON, TEXAS

*Manufacturers of Advertisers' and Publishers' Coated and Uncoated Papers, Cardboards, Bonds, Envelope and Tablet Writing . . . . Over 1,500,000 Pounds a Day*

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*This man is pulling transparent impression for offset on cellophane. Image is printed one side, offset on other side.*

## Vandercook Transparent Impressions for Plate-Making

Coincidental with announcement that the company has acquired the rights to the Monsen process for making transparent impressions offset-lith, gravure and letterpress plate-making purposes, Vandercook & Sons, Inc., announces two models of proofpresses especially adapted to the taking of the transparent impressions. These proof presses are known as Models 4T and 219T. They are hand-operated but are equipped with motor-driven inking apparatus, rubber cylinder blanket and specially constructed cylinder and pad for smoothing out the sheet and to expel the air from between the blanket and cellophane sheet or other material upon which the proof is to be taken.

Briefly explained, but not in thorough detail, the Monsen process for taking transparent proofs on cellophane or glassine, consists of offsetting type and engraving impressions on a rubber blanket attached to the cylinder of a proof press, afterwards feeding a sheet of cellophane to the cylinder to permit the sheet to be printed on both sides in register. The impression so secured on each side of the cellophane sheet are then dusted with lamblack to produce the transparent positives. The printed image is said to be absolutely opaque. By this method the halo effect obtained when printing directly from the type or form on one side of the transparent sheet with one impression is said to be eliminated. A contact print can now be made on a negative in a printing frame.

The Vandercook proof presses, adapted to the Monsen process, states manufacturer, make it possible to print one impression on top of another on a rubber blanket because through gear and rack construction the cylinder starts at a definite point on each movement of the cylinder over the form. Another factor, vital to the system, is that the rubber blanket be anchored securely around the cylinder from the gripper bar to the reel rod to prevent any creeping action of the blanket. An additional factor is that there be no movement of the cellophane on the rubber blanket after the first impression. In practice, the form to be prooved is locked in a chase on the press bed with bearers surrounding the type or halftones. A cylinder and felt pad attachment smooths out and lays the cellophane on the rubber blanket before the type and halftones press the cellophane to the rubber blanket. After the first impression from the type side has been taken, the tacky ink on the blanket causes the cellophane to adhere to the ink on the rubber blanket, and in addition, the blanket surface is tacky to hold the cellophane in the non-printing areas.

Reverse type transfers may be taken on transfer paper on these presses.

The Model 4T proof press is announced as accommodating a maximum 11 in. by 16 in. form locked in chase, while the 219T model will accept maximum form locked in chase 15 in. by 22 in. size.

*P-Double-E File Nos. 2D34, 2E15 and 1V1.*

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## Wonderlite Color-Matching Bulb

Uranium Lighting Corporation is presenting to the industry a new lighting element which has been named Unranium Wonderlite Color-Matching Blub. The bulb is made of a combination of gas, a new type filament and the proper color glass to produce a light which closely approximates North daylight. This bulb, states manufacturer, rates 6350 deg. temperature Kelvin which is approximately the same as North daylight. (North daylight rates 6300-6400 deg. temperature Kelvin.)

*Gas, new type filament and proper color glass are combined to produce this daylight color-matching bulb.*

The bulbs are made in 100, 150 and 200 w. sizes for medium base sockets. The 300 w. size takes a mogul base socket. For higher intensity illumination Uranium reflectors are supplied. The bulbs, like ordinary ones, can be screwed into any socket. Life of the bulb for perfect color discrimination is claimed to be 700 hours.

*P-Double-E File No. 1GG.*

## New Four-Roller Automatic

Brandtjen & Kluge, Inc. announce a new model Kluge Automatic Press. This new model is the same as the regular Kluge Automatic Press, with the exception of the distribution system which has been changed by eliminating the separate distributor rollers and making it a four-roller press.

The fountain is mounted above the disk so the top form roller will contact it. The disk has the same positively controlled drive but he maximum swing has been doubled tot partly compensate for the lack of distributor rollers. The drop disk has been eliminated because it is unnecessary for washup on a four-roller press.

The distribution system retains most of the features of Kluge "Selec-Tone" distribution, the main difference being that it does not have as great a coverage as the six-roller press. It is claimed, however, that it is equal to ordinary platen press distribution which is satisfactory for ordinary job printing.

The new four-roller Kluge Automatic Press is available in 10 x 15 and 12 x 18 sizes.

*P-Double-E File No. 5LL1.*

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## Aniline Ink for Pliofilm

An aniline ink formulation which, it is said, will adhere tenaciously to Pliofilm, Goodyear's cellophane-like material, has been announced by E. J. Kelly Company. Company announces that recently one of its chemists hit upon a formulation which has been perfected and tested thoroughly. Further particulars about this new ink may be obtained from E. J. Kelly Company direct or through *Printing* Equipment *Engineer.*

*P-Double-E File No. 5W11.*

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## Stereotex Hydraulic Matrix Press

Stereotex Machinery Company announces the Stereotex Hydraulic Matrix Press for stereotyping, electrotyping and rubber printing plate production. A feature of the press is that the mat is molded by two successive predetermined squeezes, one by means of a cork blanket and one directly against the ground steel surface of the top platen. It is said this action produces a uniform molding depth—small type, large type, large solids and halftone cuts penetrate the mat to substantially the same depth to produce a uniform printing level on the plates and to permit the use of a harder packing on rotary press cylinders.

The main frame and cylinder of the Stereotex hydraulic are formed into a one-piece steel casting. Top platen, moving platen and the ram are separate Mehanite castings. Special metallic packing of the ram insures permanent leakless service, it is claimed, and close fitting jack ram and four long angle gib guides on main frame provide paralellism irrespective of normal ecentric loads and temperature changes.

Steam-electric heating is provided for the moving platen and for the top platen, if desired. Temperature is controlled automatically. Top platen may be free vented or provided with a suction device to accelerate drying when molding wet mats. By means of a hand-wheel and indirectly lighted dial the pressure required for each individual job is controlled.

Manufacturer presents following molding data:

For cold molding conditioned dry mats for syndicate and job work, molding operation required is 6 sec. When hot molding specially conditioned dry mats, plastic or wet mats from originals or pattern plates for black-and-white or color work, from 0 to 3 min. are required to mold and dry a matrix in one operation. If plates are mounted type high,

(*Continued on Page 54*)

# System

**In production via the shortest distance between two points with outline for production procedure in the commercial plant pressroom**

*By* STAFF WRITER

LIFE itself is a journey and all its undertakings are some form of transportation. The Western Union delivers a message, the ship, bus or airplane delivers a passenger or freight, the author writes a book to deliver his message, or a speaker uses radio to deliver his. The printer prepares two sorts of messages, one in the form of records to be referred to from time to time, some of these even by posterity, the other for immediate or fairly prompt delivery.

In order to make delivery without loss of time and waste of labor and material it is necessary first to plan and second to prepare for the job in hand. The plan and the preparation are the important steps. Important as they are, they amount to little unless a system of production is devised that will enable production to be accomplished without waste by following the route of the shortest distance between two points.

Let us suppose that orders coming into the print shop go first to the superintendent. He decides by what process it is advisable, for both quality and economy, to produce the job. Perhaps quality on the customer's direction must be subordinated to economy or vice versa and again the superintendent must decide. The stock may be paper or other material of rough surface. Can rubber stereos or offset be used or letterpress with a special packing to print a metal form? Each of these processes may yield a satisfactory print when cost would decide. If the job is largely or principally pictures it may go via offset or again certain three and four-color process work may go letterpress, if coated paper is used.

Having decided, the superintendent arranges for ordering paper and other material.

Let us suppose that planning and preparation have been completed to the point of preparing the forms.

### Live Orders, Running Orders, Dead Orders

Orders should go to the pressroom foreman in duplicate. Envelopes of tough manila may contain the original and duplicate, a separate envelope for each. The information about the order or most of it may be written in ink or typed on the envelope and it should be as complete as possible.

On both sides of the foreman's desk should be a row of boxes or pigeon holes of ample size to hold a number of order-envelopes. The boxes may be tiered so as to be within easy reach. There should be as many boxes on each side of the foreman's desk as there are presses, and boxes and presses should have corresponding numbers from No. 1 up. The boxes on the right of the desk should be under a sign, "Live Orders," and on the left, "Running Orders."

As fast as forms are completed, the composing room superintendent sends the orders in duplicate to the pressroom foreman, who inspects them and enters them in a book, showing when the order originated, job number, subject, dates of completion and delivery.

Next, the foreman decides what press shall be used for the job. Then if stock-cutting is necessary, the duplicate is sent to the stock room and the stock is cut promptly but if the sheets need not be cut, the duplicate remains with the original until the foreman orders the stock from the stockroom.

Large tags of tough card or aluminum should be numbered just like the presses and order boxes. These tags numbered in order from No. 1 up are placed in the boxes of corresponding numbers under "Live Orders."

### As An Example

Let us suppose No. 1 press is open. The foreman having placed an order in No. 1 box under "Live Orders" now removes tag No. 1 from the box and sends it with the order to the stoneman who locks up the forms. The lockup man delivers the proper form to press No. 1 and the tag and order with it. The pressman examines the order and if in doubt about any detail he consults his foreman. If everything is clear, he locates stock sent in from stockroom, the duplicate order with it.

The pressman proceeds with lineup and register and other preparation for makeready and gets the typographical or position OK. Then he proceeds with makeready and submits a sheet for final OK to run, the order with the sheet.

After OKing the job, the foreman places order in No. 1 box under "Running Orders," if it is a single color job or the last color of a multi-color job. If subsequent colors or other operations are to follow, the order is returned to box No. 1 under "Live Orders."

If another pressman is to carry the job along on another press, say No. 5, the order would be placed in box No. 5 under "Live Orders" and tag No. 5 with it.

When the first run is off, the assistant returns the dead form, order and tag to the lockup man and gets the second form and so on but if the job is completed in the pressroom when the first form is off, the order and tag and the last sheet run with it are placed on the foreman's desk and the number of copies printed is marked in red on the envelope. The foreman checks on the number of copies, scans the sheet for pull-outs, smashes or other faults which need correction and if the sheet looks all right, he places the order in a box captioned "Dead Orders" and checks the job in his book as completed. He places tag No. 1 in box No. 1 under "Live Orders" and so on.

Another box, captioned "Waiting Orders," is used to hold orders halted while waiting for ink to dry or other unavoidable delay.

### Better Than Lack of System

This system of pressroom operation is not perfect and some may note chance for improvement but it is an improvement on the lack of system prevailing in many shops which causes confusion, errors, lost time and much needless scurrying around and time-killing conversation.

There is no uncertainty nor need for conference between stoneman and pressman or between pressman and his foreman unless the pressman is not sure of details of the job. Everything informative is on the order in writing and it is only necessary to follow the system to proceed without confusion over the shortest route between receipt of order in the pressroom and its completion.

# Mechanical Conference

## Of A.N.P.A. Mechanical Department features clinics, advertising campaign, engraving light sources, offset and gravure.

*By* STAFF WRITER

THE Thirteenth Annual Mechanical Conference of the American Newspaper Publishers Mechanical Department will be held at Benjamin Franklin Hotel, Philadelphia, on Monday, Tuesday and Wednesday, June 5, 6 and 7. Several novel features have been incorporated in the program. The Mechanical Department Conference is for representatives of A.N.P.A. member-papers only. Announcement, however, has been made that exception will be made in the case of invited guests and manufacturer and supplier representatives. As is customary, trade representatives will be admitted under the same conditions as have been followed in the past, *i.e.*, admission to the conference sessions is by request only. Only one representative of a commercial organization can be permitted in the meeting room. Manager W. E. Wines suggests that any company wishing to have a representative attend the sessions should write to him previous to the conference for a card of admission. By this procedure, the representative will be automatically identified at the conference and registration will be facilitated.

The illustrative side of newspaper printing will receive attention at the Conference. Staff Photographer W. C. Eckenberg of the New York *Times*, will discuss *News Photos and Their Reproduction*. Chief Artist Frank Onken, Baltimore *Evening Sun*, will talk on *Retouching*. Some valuable suggestions should be secured from both these addresses. The topics are important in view of the drift toward picture consciousness among newspaper readers.

A novel feature of the Philadelphia program will be the presentation by several representatives from N. W. Ayer & Son Advertising Agency showing how a national newspaper advertising campaign is conceived, developed and carried through to finished form in newspapers.

On Monday afternoon, four departmental meetings will be held. These will be representative of and will be attended by composing, stereotype, pressroom and photo-engraving representatives. A secretary will be appointed for each of the meetings, who, with the assistance of a stenographer, will prepare an abstract of the discussions for presentation to the general sessions, as follows: Composing Room and Photo-engraving reports will be made Tuesday evening, general meeting. The Stereotype and Pressroom reports will be presented at the Wednesday morning general meeting. In this way, any executive who would like to know what transpires at more than one of the meetings will receive a comprehensive report of all the departmental sessions at the general meetings. This plan should meet with the approval of all executives attending the Philadelphia Conference.

In view of the attention given to recent developments in newspaper offset printing, the discussion to be presented by Thomas E. Dunwody, Editor of the *American Pressman*, should command the attention of all mechanical executives. Mr. Dunwody is in intimate touch with progress in the printing industry and his appraisal of this development should be illuminating.

Four trips have been scheduled for Tuesday afternoon. These are as follows: Party trip through plant of Curtis Publishing Company, trip to Franklin Institute Museum, plant inspection trip to Imperial Type Metal Company and Lanston Monotype Machine Company.

The program as released by Manager W. E. Wines is as follows:

MONDAY, 10 A. M.—BALLROOM

*Opening Address*—Robert McLean, President, Philadelphia *Bulletin*.
*Newsprint Question Box*—W. G. MacNaughton, Engineer, News Print Service Bureau.
*Assistance to Newspaper Mechanical Departments*—Dr. Mark Ellingson, President, Rochester Athenaeum and Mechanics Institute.

MONDAY, 2 P. M.

FOUR DEPARTMENTAL MEETINGS

Composing Room—Ballroom, Hotel.
Stereotypers—Betsy Ross Room, Hotel.
Pressmen—Second Floor, Edison Building, 9th and Sansom Streets.
Engravers—Ballroom Foyer, Hotel.
*Retouching of Photographic Copy*—Frank Onken, Chief Artist, Baltimore *Evening Sun*.

TUESDAY, 9:30 A. M.—BALLROOM

*News Photos and Their Reproduction*—William C. Eckenberg, Staff Photographer, Rotogravure Picture Section, New York *Times*.
*Preparation of a Newspaper Advertising Campaign*—N. W. Ayer & Son.
*Discussion*—Agency Problems.

TUESDAY AFTERNOON

INSPECTION TRIPS

Lanston Monotype Machine Co.
Curtis Publishing Co.
Franklin Institute Museum.
Imperial Type Metal Co.
The Lanston Monotype Machine Company will serve lunch at its plant, 24th and Locust Sts., about 15 minutes from hotel. Trip through plant will occupy about 1½ hours. Add 30 minutes for lunch.

TUESDAY, 8 P. M.—BALLROOM

*Engravers' Zinc*—W. H. Finkeldey, Consultant, Edes Mfg. Co.
*Reports from Departmental Meetings*—Composing Room and Photo-engraving Department.

WEDNESDAY, 9:30 A. M.—BALLROOM

*New Light Sources for Photo-engraving and Photography*—R. E. Farnham, Commercial Engineer, General Electric Company.
*Reports from Departmental Meetings*—Stereotype Room and Pressroom.
*Discussion*—First-impression Printing.

WEDNESDAY, 2 P. M.—BALLROOM

*Offset Printing and the Newspaper*—Thomas E. Dunwody, Editor, *American Pressman*.
*An Agency Man Looks at Rotogravure*—V. Winfield Challenger, Director of Printing, N. W. Ayer & Son.
*Discussion*—Rotogravure Topics.

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### Intertype Catalog

Intertype Corporation has completed a 52-page catalog of its streamlined machines and latest features. The book is 8½ in. by 11 in. bound in a black, gold stamped cover and liberally illustrated. The text, explaining the newest improvements such as the six-pocket mold disk, automatic justification, bulb type thermostat, quadding and centering, etc., is set in Intertype's Cairo family. If you're a printer, a request on your letterhead, addressed to Intertype Corporation or the nearest branch office, will bring a copy.

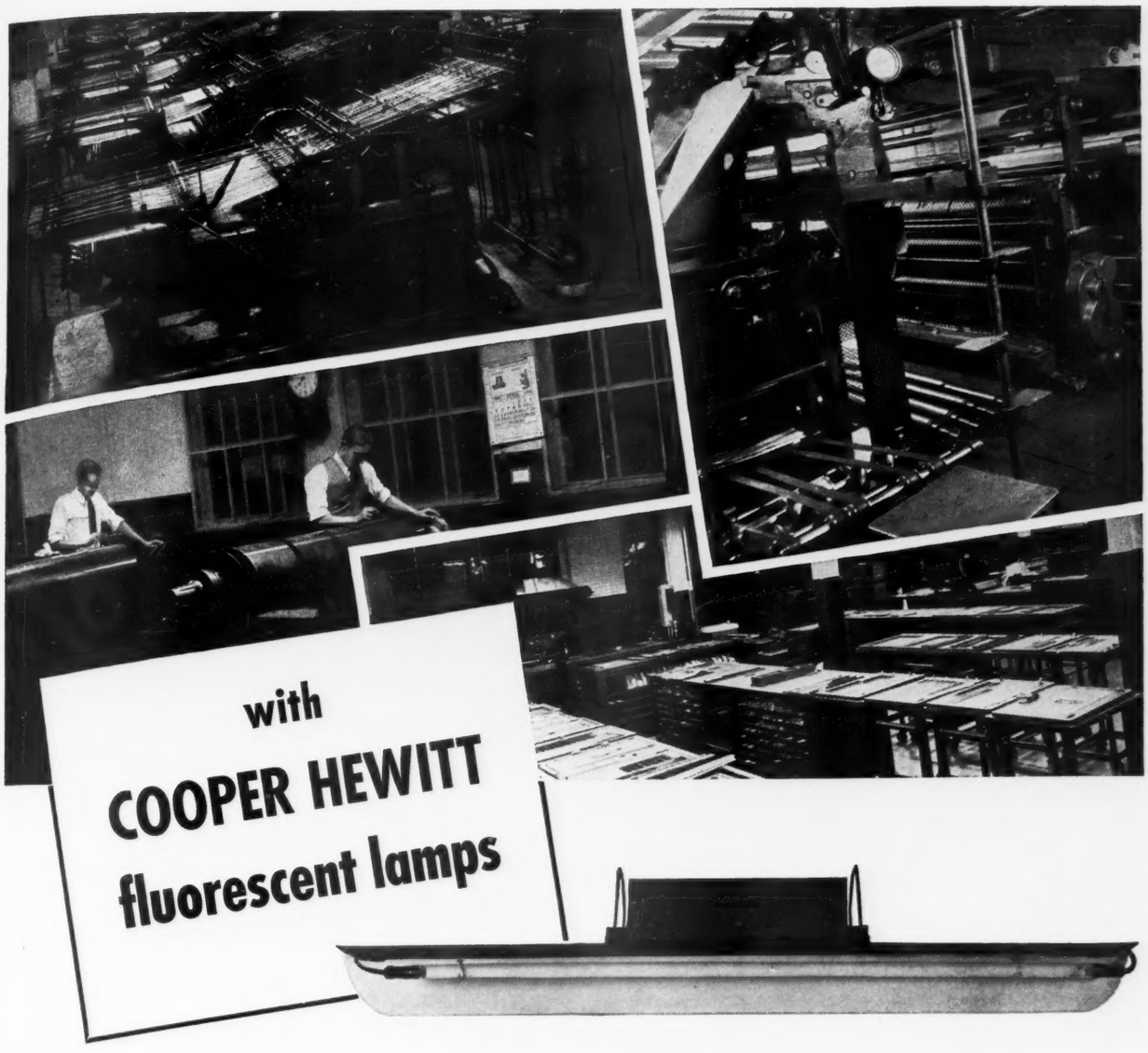
*P-Double-E File No. 1G.*

### Superior Represents Ideal

On April 1, 1939, the Superior Roller Co. of Kansas City, Missouri, became representatives of the Ideal Roller & Manufacturing Company in the territory surrounding Kansas City. Superior will market the various Ideal rollers, roller coating machines, plate gums and other products made by Ideal.

According to President E. G. Pope, the new association will enable Superior to furnish the more durable types of rollers as well as composition rollers and allied products. Mr. Pope, who established the Kansas City company in 1930, is assisted by his son, J. Ernest Pope.

# GIVE LIGHT TO THE PRINTED WORD...



with

## COOPER HEWITT fluorescent lamps

Printers, typesetters and engravers can't help but be enthusiastic about this most modern light source. Its cool blue-white light eliminates shadows, glare and eye-fatigue. There is no bothersome light flutter. Moreover, this 100-watt Cooper Hewitt Fluorescent Lamp gives the greatest light output of any lamp of equal wattage. » » » Sum up the advantages this way: Fewer mistakes, less accidents, because seeing is better, less fatiguing. Less bothersome heat, because more of the electrical energy is converted into light. Long lamp life — less maintenance. Low operating cost — high power factor. » » » It's got everything you need. Write for complete information. General Electric Vapor Lamp Company, 899 Adams Street, Hoboken, New Jersey.

**GENERAL ELECTRIC VAPOR LAMP COMPANY**

548F

# Servicer Box

## Mounted on stereotype metal pot rim maintains mats at proper temperature to avoid chilled spots in first casts

*By* CHARLES G. HAMBLEN*

A SPECIAL stereotype mat pre-heating box, or servicer, as we call it, is being used in the stereotype foundry of the Pittsburgh *Press* for maintaining mats at suitable casting temperature during the interval which occurs from the time the mats are removed from the drying device and the actual casting operation. The mat pre-heating box is mounted on the outer rim of the metal pot adjacent to the Autoplate casting box and is provided with heating elements to maintain mats at the proper temperature until ready for use.

The stereotyper will understand that if a mat is taken out of the drying device, for even one minute, naturally, it begins to chill. It loses the high temperature to which it has been raised in the drying device. As a result, the first and sometimes as many as three casts taken from the mat must be discarded because of cold spots. To bring the mat back to the required temperature to avoid cold spots in the plates, it is necessary for the casting machine operator to again place the mat in the drying or baking device to bring up the temperature of the mat. Even when this is done, there is always the possibility that the temperature will not be just right when the mat finally is taken out of the mat dryer for transfer to the casting machine.

With the pre-heating device or servicer, however, which we are using at the Pittsburgh *Press*, the mats are placed in the storage compartment immediately after they have been baked. There they remain, always at proper temperature, until the casting machine operator is ready to use them. Mats are ready for use and are brought up to casting temperature in 15 sec. after they have been placed in the pre-heating chamber of the servicer.

Under present high-speed newspaper production conditions, it happens that several times a day the maximum number of plates must be produced in the minimum time. For this reason, it is always possible to prepare more mats for casting than operators of the casting machines can handle immediately. In many newspaper stereotype foundries it is necessary to take from 8 to 24 casts from a single mat.

It follows, then, that if the necessity for re-heating or re-drying the mat is eliminated together with the probability that several casts may have to be made and discarded before a usable one is produced, many minutes will be saved by use of the servicer.

The servicer is made of ⅛ in. cold-rolled steel. Overall, it is 4½ in. thick and 24½ in. long, with a 30 deg. radius. It is divided into two compartments—storage in the front and heating in the rear.

The storage compartment, which will hold up to six mats, is 1½ in. wide and 16 in. high. The heating chamber has an opening of ½ in. and is 17½ in. high in the front and 20 in. high in the rear. In the center of the front section of the heating chamber, there is a 2 in. hand-size cut-out so that mats may be placed in and withdrawn easily from the ½ in. opening of the heating chamber.

The servicer is anchored to the outer rim of the metal pot and, because of its 30 deg. radius, fits snugly against the pot. It is attached to the pot by two slotted, half-inch bolts, one vertical and one horizontal, making it possible to install or remove the servicer in a minute or two at the most.

The servicer can be anchored at a position where it can be reached within arm length by the operator of the casting machine.

*Stereotype Superintendent, Pittsburgh* Press.

*Stereotyper takes a page mat from the Hamblen pre-heater or servicer to transfer to autoplate casting box. During interval from time mat is removed from dryer or baking device until it is to be placed in the casting box, the servicer maintains it at proper temperature so none of the first plates will need to be discarded because of chilled spots.*

# Uneasy Feeling

## About repair parts for composing machines eliminated by use of steel cabinet

*By* JOE GALLAGHER*

THE storage of small machine parts in the composing room is more or less a complicated matter unless some system is adopted and suitable storage equipment is provided. All of us have seen parts kept in drawers, wooden boxes, cardboard boxes, tin cans and "what have you." When usable and new parts are kept in this condition, the collection resembles so much junk and there is no way to determine whether needed parts are at hand at all times. When a certain part is needed in a hurry a scramble is made for one of these containers. A lot of digging ensues accompanied by the uneasy feeling: "Have we got the part?"

To overcome this uncertainty and to provide a means for control of the quantity of parts kept on hand, our composing room is equipped with a parts cabinet, so constructed, that we can tell at a glance whether we have the part. The cabinet is made of steel and can be manufactured by any company making standard composing room equipment. Cabinets to serve similar purpose are sold as standing equipment by several companies.

The cabinet is 6 ft. 6 in. high by 2 ft. 10 in. wide and stands 8 in. off the floor. The space between the floor and the bottom shelf of the cabinet is entirely enclosed and eliminates any possibility of dirt, matrices and other things lodging underneath. Two steel doors with lock and key make it a secure place for keeping valuable machine parts.

The shelves are removable and can be adjusted up or down to suit the individual needs of any plant. Our cabinet has six shelves. Each shelf contains a bank of 18 drawers, making a total of 108 drawers in the cabinet. Each drawer is labeled and numbered. The number takes care of the drawer being returned to its proper place after having been used. The

*Chief Composing Room Machinist, Hartford (Conn.)* Times.

*Joe Gallagher, Chief Composing Room Machinist, the Hartford (Conn.)* Times, *describes the composing machine small parts cabinet in the accompanying article.*

**EDITOR'S NOTE:**

*Bernard F. Garrity, Mechanical Superintendent of the Hartford (Conn.)* Times, *is greatly pleased with Chief Composing Room Machinist Joe Gallagher's system for keeping composing machine parts in order so that at all times it is definitely known whether a supply of certain machine parts are at hand or if new parts should be ordered. John A. Burke, Production Manager of The Gannett Newspapers, states it is a policy of his organization to encourage machinists to check their supplies once a month and order the necessary replacements. If the replacements are ordered on the first of the month, the bill comes in during the month and replacements are charged against the current month's expenses. Replacements on the machines are charged against the cost per column and if a machinist permits his supplies to run low and then places a big order in any one month, there is a tendency to increase the cost per column for that month and to some extent destroys comparisons.*

label designates the particular part or parts of the machine contained within the drawer.

The drawers are 15½ in. long and 5 in. wide and so made that each drawer may be partitioned off into 16 individual sections, making a total, if need be, of 1728 separate sections, or any number of sections desired, all according to the size of the parts to be stored. Each partition bears a card holder, where a card may be inserted bearing the name and number of the part contained within this section. The three main sections, or banks of drawers, contain, from the top down, Assembling, Casting and Distributing parts. Other parts, such as Driving, Saw, Margach Feeder and Miscellaneous are stored in the bottom bank.

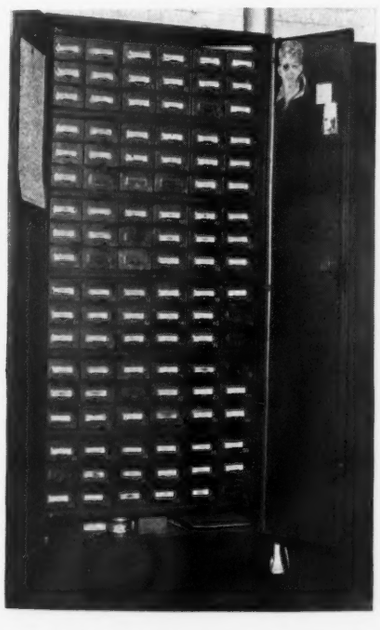


*Fig. 1—View of composing machine small parts cabinet constructed for use in composing room of the Hartford* Times. *A cabinet of this kind together with a record system eliminates that uneasy feeling: "Have we got the part?" when repairs are needed on composing machines. This steel cabinet is 6 ft. 6 in. high by 2 ft. 10 in. wide. The space between the floor and bottom shelf of cabinet (8 in.) is completely enclosed to prevent dirt or matrices lodging underneath the cabinet.*

For example, a drawer is labeled "Assembling Elevator." In this drawer are stored the small parts for the assembling elevator, all parts of one kind in its own individual section, and so on with Assembling, Distributing and Casting mechanisms. Some of these parts may require two or more drawers, according to the number and size of the parts. When a part is taken out of the drawer and the supply on hand is low, a record is made and the name, number and quantity required are entered on an order blank. At the end of each month a check is made of the parts storage cabinet. This check and the previously written order blank make a double check on parts required.

*Fig. 2—One of the parts drawers taken from the cabinet shown in Fig. 1. The drawers are 15½ in. long and 5 in. wide. In this particular drawer are kept assembling elevator parts for line-composing machines. The large number painted on the drawer front indicates the position of the drawer in the cabinet. The other label indicates the kind of parts for the unit assembly of the machine, and the labels on each of the partitions indicates the particular part (screw, buffer, detaining plate, etc.) to be found in that compartment.*

The large parts are stored in a cabinet similar to the small parts cabinet. Instead of the banks of drawers, however, it contains only shelves. These shelves are partitioned into sections of different sizes.

## *Monotype Production Rack*

HARRY HALT, JR., Monotype operator for the Erie (Pa.) *Dispatch*, has designed a rack in which may be placed eight type cases while the cases are being sorted or supplied with entire new fonts of type, and for transporting the filled type cases from the Monotype casting department to the type cabinets in the hand section of the composing room.

While the rack is designed to support eight cases at one time, the arrangement of the runners permits partially pulling out four of the cases for refilling work, since the runners are arranged in pairs. The other four cases may be pushed in on the top runner of each pair of runners.

The top of the rack has been constructed in such a way that galleys for holding strip material from the strip-casters rest in an inclined position. In case more space is needed for strip material, a case may be set in an inverted position on a pair of runners and the galleys containing the material placed on top of the inverted type case.

As will be seen in the illustration, the frame of Mr. Halt's rack is constructed of pipe and pipe fittings. Angle iron runners and steel rod braces hold the entire rack rigidly. Four casters permit rolling the loaded rack from the caster room to distribution points.

The strap iron pieces shown in the illustration, shaped somewhat after the fashion of a shepherd's crook, are used as safety guards to prevent the type cases sliding from the rack while the operator is delivering material. The lower end of the hooked strap is placed inside of the round tie rod in the lower front elevation of the rack and lowered until the hooked end at the top rests on the cross-wise pipe section at the front upper elevation of the pipe frame.

In plants where regular material men are employed for restocking type cases, the rack will be found to be the means for facilitating the work.

*Editor's Note*—On page 26, Feb., 1936, issue of *Printing* EQUIPMENT *Engineer*, a flat-top rack was discussed by H. George Gilbertson, Composing Room Machinist of the Flint (Mich.) *Journal*. Mr. Gilbertson's rack, however, was made from flat material and accommodated two type cases, and was designed as a permanent fixture for the caster room.

### Morrill Executive Changes

The Geo. H. Morrill Company, Division of General Printing Ink Corporation, has announced the following personnel changes: Charles D. Adkins, formerly district manager in charge of the Philadelphia office has been appointed midwest manager with headquarters in Chicago. He will have jurisdiction over Chicago, Detroit, St. Louis, Fort Worth and Minneapolis offices of the company.

Lewis R. Shupe, Jr., formerly salesman in the Philadelphia district has been appointed district manager in charge of the Philadelphia office.

Benjamin F. Bunn, New York district manager, has been appointed Eastern manager. He will continue in charge of the New York district and will exercise supervision over the Philadelphia office.

Edmund J. Shattuck, formerly Pacific Coast manager, has been appointed New England manager in charge of operations of the Boston office, and will have supervision over the technical staff of the factory at Norwood, Mass.

Rockland S. Crowell, formerly midwest manager, has been appointed manager of the roller department with headquarters in New York. He will be in direct charge of all operations in connection with the sale of newspaper rollers.

# Board of Directors

## Of Wood Newspaper Machinery Corporation pays tribute to founder—Research to be pushed with increased vigor.

ON FRIDAY, April 21, a meeting of the Board of Directors of the Wood Newspaper Machinery Corporation was held. This was the first meeting of the board since the passing of Chairman of the Board Henry A. Wise Wood.

*Oscar C. Roesen, President*
*Wood Newspaper Machinery Corporation*

The officers of the Wood Newspaper Machinery Corporation are:

Oscar C. Roesen, president; John A. Isbell, executive vice-president; J. P. Catlin, treasurer; C. Alfred Capen, secretary; P. L. Tollison, assistant secretary; Kirk McFarlin, assistant treasurer.

Directors of the Corporation, in addition to the titled officers are: Messrs. Charles K. Beekman, William M. Clark, Nelson Maynard and John C. Distler.

The following tribute to Mr. Wood was unanimously approved and spread upon the minutes of the corporation:

"Henry A. Wise Wood, founder of this corporation, member of its Board of Directors since 1914, president from 1914 until 1935, and since chairman of the board of directors, died on April 9, 1939.

"His was the vision of the newspaper of today and tomorrow. To the fulfillment of that vision he gave unstintingly his inventive genius, his dynamic energy and his undying faith in the possibilities of scientific achievement.

"His staunch courage and genial personality won him the admiration and affection of a host of friends.

"We, his associates on the board of directors, desire to express this tribute of appreciation and loyalty to his memory and to extend our most sincere sympathy to his family."

The officers, directors, Manager of Sales I. Tornberg and Autoplate Engineer Edward Rehm, have been associated for a long time with Mr. Wood in the development of inventions and processes and in manufacturing operations.

President Oscar C. Roesen stated immediately after the meeting that: "The Wood Newspaper Machinery Corporation has always maintained a research department for the study of newspaper problems whereby the necessary machinery for reducing the cost of production of newspapers and improving the quality of printing could be invented and developed. This principle of research the directors and officers of the company intend to maintain and push with increased vigor."

While he, due to a serious operation for a ruptured apprndix, had not been active in an executive or developmental capacity for some time, the announcement of the passing of Henry A. Wise Wood, Chairman of the Board, Wood Newspaper Machinery Corporation, last month, brought forth expressions of regret among newspaper printing and production executives who knew him. Mr. Wood passed away Sunday night, April 9, at 8:55 o'clock at his home in New York. He had been ill just a few days of a streptococcic pneumonia infection. He was 73 years of age. Mrs. Wood, a daughter, Mrs. John C. Distler of Baltimore, and her husband and their daughter, Miss Hope Hartley Distler, were with him.

In 1881, when Mr. Wood was about to enter college, his father died, his family lost its money and he had to go to work. Because of his knowledge of printing acquired through use of small presses in childhood years and later from publishing a small newspaper while a student at the Media (Pa.) Academy, he obtained a job in New York as office boy for the Campbell Printing Press & Mfg. Co. Later on he organized the Wood Newspaper Machinery Corporation.

In 1894 Mr. Wood had come to the conclusion that the avenue of greatest growth for the printing industry lay in the newspaper plant. He turned from commercial printing machinery to devote himself to the development of better newspaper machinery.

He watched the presses running in the plant of the New York *Herald* at 24,000 impressions an hour, having received permission from Editor James Gordon Bennett to wander about the plant at will. This, Mr. Wood said, led to his invention of the autoplate. The autoplate was first installed by the *Herald*, then by the *World* and finally by most large newspapers throughout the world.

Mr. Wood found that newspapers at that time suffered from the mechanical limitations of their pressrooms. He established a laboratory to ascertain scientifically the highest speeds at which newsprint could be run through a press. He discovered that at 60,000 i.p.h., the printing was clearer than that obtained by presses running at 24,000 i.p.h., and that the printing was better still at 75,000 i.p.h. Printers believed that newsprint was not strong enough to stand up under printing at high speed. Although the paper-handling parts of the presses moved harmoniously at lower speeds, they broke step at the higher and began warring among themselves until they tore the paper.

By designing his machines with heavy steel side frames, using type and impression cylinders of forged steel running in anti-friction bearings and employing heavy alloy steel gears the high speeds were reached and the difficulties mentioned above were overcome.

Mr. Wood invented the autoreel and the autopaster and developed a folder which would fold papers up to 96 pages (full newspaper size) at high speed.

Wood presses, it is estimated, permitted the printing of one agate line of type in four one-thousandths (0.004) of a second and the folding of the completed newspaper in one one-hundredth (0.01) of a second.

Mr. Wood's interests and activities were varied. He was an outstanding aeronautical engineer, pioneering especially in naval aeronautics.

# Books

## Received

### Printing and the Allied Trades

ASIDE from its intended use as a text or work-book in industrial arts printing courses, the newly revised edition of R. Randolph Karch's 318-page book, *Printing and the Allied Trades*, should make a splendid reference book about the elementals of the printing processes for production and mechanical executives in printing plants. Mr. Karch is technical supervisor of Rochester (N. Y.) Athenaeum and Mechanics Institute.

Subjects covered, illustrated and defined are composition, proving and correcting, commercial printing, mechanical typesetting, lockup and imposition, printing presses, printing plates, duplicate printing plates, ink and color, copperplate engraving, lithography, collotype and gravure, paper. A glossary of printing terms is included. The book, of course, is prepared for school instructional use.

Our principal mention of the book is for reference purposes by printing executives. There are too many details in printing technique to "keep them in one's head." Wide awake executives, more and more, are including books of this type in their working libraries. The printing industry is one that requires wide knowledge. Mechanical and production executives every so often meet up with some term or detailed technique with which they are not familiar. Mr. Karch's book will furnish most of the answers related to the elementals of the printing processes. The author has prepared the book carefully and has supplied a liberal number of illustrations, in fact, there are 207 of them.

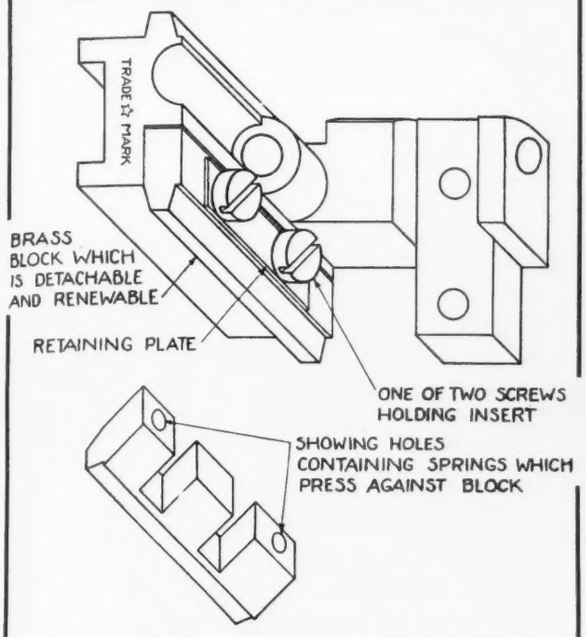
*Printing and the Allied Trades*, by R. Randolph Karch. Second edition. Bound in blue cloth, blind stamping, 318 pages, 5½ in. by 8¼ in. Price, $1.50 per copy. Published by Pitman Publishing Corporation, 2 West 45th St., New York, N. Y.

### Modern Makeready Book

The production of finer printing at lower costs is the topic of a new handbook, *Modern Makeready Methods*, recently issued by The Cromwell Paper Company, Chicago, manufacturers of Cromwell Special Prepared Tympan. *Modern Makeready Methods* sums up in a few pages a wealth of valuable information on the do's and don'ts of makeready under conditions encountered in modern presswork. It is well illustrated with simple, easy-to-understand diagrams. The book may be obtained free of charge by writing on your company letterhead to your local Cromwell distributor. If you do not know his address, write direct to The Cromwell Paper Company, 4801-29 South Whipple Street, Chicago, Ill.

(*Continued on Page 34*)

## EVERLASTING ADJUSTABLE DELIVERY SLIDE LONG FINGER BLOCK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BRASS BLOCK WHICH IS DETACHABLE AND RENEWABLE
RETAINING PLATE
ONE OF TWO SCREWS HOLDING INSERT
SHOWING HOLES CONTAINING SPRINGS WHICH PRESS AGAINST BLOCK

The block should last forever! The adjustable insert keeps the entire delivery slide *erect*—reducing wear on the *short finger block*—prevents the long finger from injuring the *assembling elevator* and the *first elevator jaw.*

**Price $4.50**

## ONE-PIECE CHROMOLAX HEATING UNIT

(For Linotype Electric Pots)

Replace the *two* immersion units now used.

Heats up more quickly—

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Yes, Vulcan Gelastic Rollers have the softness and resilience necessary for good distribution and good presswork. At the same time, they have what it takes to withstand extremes of heat and cold, and the day-in day-out pounding of hard service. By eliminating press delays due to roller troubles, and because of their remarkable durability, Gelastic Rollers effect large savings. Write for complete information about them.

NEW PRESS PACKING. Paper base, rubber coating, one side oil-proof. Used either with or without tympan, on all types of presses. Write for details.

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# VULCAN
## heat-proof
# GELASTIC ROLLERS

## New President For R. Hoe & Co.

HARRY M. TILLINGHAST was elected president of R. Hoe & Company on Tuesday, April 11. The election occurred at the annual meeting of the stockholders of the company. At the meeting, the following directors were re-elected unanimously: Clifton N. Bradley, Neil P. Cullom, Edward Foster, John T. Harrison, Allen W. Lishawa, Harry M. Tillinghast and E. D. Timberlake.

*Harry M. Tillinghast, President, R. Hoe & Co.*

To fill vacancies on the board, the following were elected unanimously: George G. Carnegie, Jr., Arthur Dressel, Arthur I. Hoe and Raymond M. Tierney. Arthur Dressel is General Sales Manager of the company and Arthur I. Hoe is a direct descendant of Robert Hoe I, who founded the Hoe Company 134 years ago.

At the subsequent organization meeting of the new board Harry M. Tillinghast, vice president of the company for many years, was elected president unanimously and the following officers were re-elected unanimously: Edward Foster, Vice president; Allen W. Lishawa, secretary and treasurer, and Charles E. Littleton, assist. secy. and asst. treas.

Harry M. Tillinghast has been with the company continuously since 1910. In 1920 he was elected secretary of the company and in 1926 he became vice president in charge of sales and a director. In 1936 he was appointed assistant general manager and also became a director of R. Hoe & Co., Ltd., London. He has long been active in affairs pertaining to the Graphic Arts industries. He was elected chairman of the Code Authority for the Newspaper Printing Press Industry in 1934, and chairman of the Newspaper Printing Press Builders' Association in 1935. In the latter year he was elected as a member of the Advisory Associates of the Graphic Arts Division of the American Society of Mechanical Engineers, and from 1937 until its dissolution in 1939, he was a member of the Council of the Graphic Arts Research Bureau.

In the course of his many years connection with the Hoe Company, Mr. Tillinghast has traveled extensively and has acquired many friends in the printing and press manufacturing industries all over the world.

# Roller-Setting Gauge

*By* AUBURN TAYLOR*

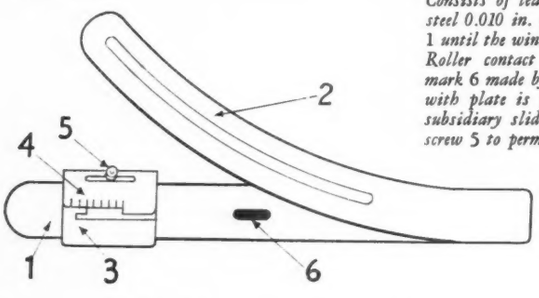
HERE'S a little description of a gauge-rule which was devised by the writer and which is being used in the pressroom of the Charleston *Gazette* to set rollers. The gauge consists of two leaves made from feeler gauge steel (0.010 in. thick) and fastened together at one end. The leaves are approx. 12 in. long by 1 5/16 in. wide with a slide, through the window of which can be seen whether the roller setting is correct. The width of the window or slot in the slide 3 is adjustable for width of contact of the roller according to the diameter of the roller which is to be adjusted. The subsidiary slide, or vernier *4* is moved for width of gap by loosening nut *5*, and after setting subsidiary slide *4*, the nut *5* is tightened to hold the adjustment.

To use the gauge, the slide 3 is pushed nearly to the end of the gauge, then the gauge, with leaves *1* and 2 in contact, is placed between the roller and the plate in a position so that when the roller bears against the plate in the usual way, it will imprint *through* the slot in leaf 2 at the point of contact on leaf *1* as shown at *6*. (Leaf 2 prevents smear of the contact mark *4*.)

The slide 3 when pushed over mark *6* will show the amount of contact of the roller with the plate. The ink imprint can then be wiped off, either to take another impression to correct the setting of the roller or to check another roller setting. The idea of the slot in leaf 2 is to give a clear mark on the bottom leaf *1*. The mark *6* taken by this method is slightly longer than a like mark taken on newspaper, but it is a *clear* mark which is not the case when using paper. When using the roller-set rule you must have a film of ink on the roller such as would make a dense mark on paper.

Variation in the diameters of the various rollers on newspaper presses, of course, makes it necessary to have varying contacts with the plates. Since the gauge is graduated to accommodate those various contacts, roller setting may be accomplished easily and accurately.

**Pressroom Superintendent, Charleston (West Va.) Gazette.*




*Taylor printing press ink roller setting gauge. Consists of leaves* 1 *and* 2, *made of feeler gauge steel 0.010 in. thick. Slide* 3 *is moved along leaf* 1 *until the window is positioned over roller mark* 6. *Roller contact with plate is indicated by ink mark* 6 *made by roller. Width of contact of roller with plate is previously determined by adjusting subsidiary slide, or vernier* 4 *by loosening thumb screw* 5 *to permit adjustment.*

## Books

(*Continued from Page* 32)

### Modern Typography and Layout

THE first book in English on the modern movement in typographic design, *Modern Typography and Layout*, by Douglas C. McMurtrie, which was published in 1929, has long been reported out of print, and many orders for it have been returned unfilled. Recently a package of these books were found, wrapped as they came from the bindery. A limited number of orders for this book which marks a milestone in the history of printing in this country, can now be filled by *Printing* Equipment *Engineer*, at the original price of $7.50 postpaid.

*Modern Typography and Layout* is still the authoritative work on the philosophy of modern design in printing, so the book is one which should be in the libraries of printers, printing schools, and other educational institutions. It is a large quarto of 190 pages, richly illustrated with reproductions of modern typography, printed throughout in colors, and durably bound. The introduction was written by the late Edmund G. Gress.

### LSP Year Book

THE front section of the 1938-39 edition of the London School of Printing's Year Book is devoted to the printing of tributes to J. R. Riddell, who after many years of service in the capacity of Principal, has retired from active duty. Also is presented a Farewell Message from the retiring principal who is well known in the United States. A full page portrait done by color gravure is inserted as a frontispiece. Americans who know Principal Riddell will regret to hear of his retirement but will wish him well for the future.

The new edition of the *Year Book* is once more a fine example of the seriousness with which the organization behind the school regards its instruction. A miscellaneous collection of examples are bound into the book. These consist of composition, letterpress four-color and monochrome specimens, as well as examples of offset printing and a section demonstrating ruling instruction to be had at the school.

The book is 8 3/4 in. by 11 3/8 in. size and bulks approximately 1 1/4 in. thick. One hundred and forty-eight pages are devoted to reproductions of six lectures given at Stationers' Hall during the school year.

No finer testimonial of the worthiness of the technical instruction to be secured at the school could possibly be presented than by publication of the year book which represents actual work done by students under the supervision of the instructors.

### Photo-Engravers' Convention

The forty-third annual convention of the American Photo-engravers' Association will be held in Philadelphia on Monday, Tuesday and Wednesday, October 23, 24 and 25. An exhibition of machinery, equipment, material and supplies will be held concurrently with the convention.

### ATF at the Exhibition

Thomas R. Jones, President of American Type Founders, Inc., announces that together with associated companies, ATF has taken 9000 sq. ft. of floor space, of which 70 per cent will be devoted exclusively to ATF products.

# Ayer Newspaper Awards Announced

GENERAL Hugh S. Johnson, newspaper columnist; Quentin Reynolds, associate editor of *Collier's Weekly*, and Walter Dorwin Teague, Industrial designer and typographic authority, on April 7 judged the many newspapers entered in the Ayer ninth annual exhibition of newspaper typography. Papers were judged only on typography, press-work and makeup. Editorial content was not considered.

The New York *Herald-Tribune* was awarded the Francis Wayland Ayer Cup for 1939.

In addition to the Cup, which was a sweepstake award given for the best paper in the Exhibition regardless of circulation or format, ten other awards were announced, as follows:

In that group of papers with more than 50,000 daily circulation (121 entered): First Honorable Mention, New York *Times;* Second Honorable Mention, Pittsburgh *Press;* Third Honorable Mention, *Christian Science Monitor.*

In that group with from 10,000 to 50,000 daily circulation (342 entered): First Honorable Mention, Hartford (Conn.) *Courant;* Second Honorable Mention, Chattanooga (Tenn.) *Daily Times;* Third Honorable Mention, Bridgeport (Conn.) *Telegram.*

In that group with under 10,000 daily circulation (834) entered): First Honorable Mention, Concord (N. H.) *Daily Monitor;* Second Honorable Mention, Hornell (N. Y.) *Evening Tribune;* Third Honorable Mention, Meadville (Pa.) *Tribune-Republican.*

In the tabloid group (31 entered): Honorable Mention, New York *Daily News.* (There was only one mention offered in this group).

*Arthur H. Burns, Mechanical Superintendent, New York* Herald-Tribune, *who with his departmental executives supervised production to win 1939 Ayer Award for excellence in newspaper printing. Departmental executives are: Composing Room Superintendent I. T. Bardsley, Stereotype Superintendent W. A. Thompson and Pressroom Superintendent A. T. Kuhn.*

The entries in this year's Exhibition represented 76.94% of the daily English language newspapers in the United States which were invited to enter. In the past nine years that Ayer has conducted this annual Exhibition, more than 70% of the dailies have been represented each year.

The *Herald-Tribune*, which won a leg on the second Francis Wayland Ayer Cup this year, retired the first Cup in 1934, having won it three times for permanent possession. In addition to winning four cup awards since the inception of the annual Exhibitions in 1931, the *Herald-Tribune* has also won four Honorable Mentions.

The New York *Times*, which this year won First Honorable Mention in the group with more than 50,000 circulation, has twice in the past won the Ayer Cup (1933 and 1935), and won Honorable Mention in its circulation group in 1936, 1937, and 1938.

This is the first award for both the Pittsburgh *Press* and the *Christian Science Monitor.*

The Hartford *Courant*, winner of First Honorable Mention in the 10,000 to 50,000 class, won the Ayer Cup as the best in all classes in 1932. In addition it has also won Honorable Mention in its circulation class in 1933, 1935, 1937, and 1938.

The Chattanooga *Times*, which this year captured Second Honorable Mention in the 10,000 to 50,000 class, previously received an Honorable Mention in its circulation class in 1934.

In the group with under 10,000 circulation, the *Evening Tribune* of Hornell, N. Y., which this year received Second Honorable Mention, has three times been accorded mention in its circulation group (1934, 1936, and 1937). Neither the Concord *Monitor* nor the Meadville *Tribune-Republican* has received previous recognition.

### Speaks to Memphis Craftsmen

Preceding the practical portion of his talk on slug composition, Douglas C. McMurtrie reminded the members of the Memphis Club of Printing House Craftsmen on April 20 that next year, in 1940, there would be celebrated the 500th anniversary of the invention of printing, which is regarded by most authorities as the most important invention in the history of mankind.


# Everything for the Composing Room

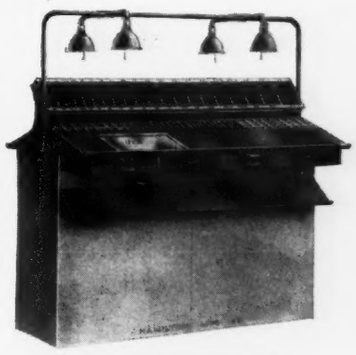
Hamilton's new revised Printing Plant Equipment Catalog No. 22 is now ready . . . it is a complete book of composing room equipment. A copy of this new catalog describing modern time-saving equipment should be in your file.

Just send in the coupon for your copy of the Hamilton Printing Plant Equipment Catalog No. 22.

This 72-page catalog of modern time-saving equipment gives you complete information on type cabinets, benches, racks, stands, bindery tables and trucks . . . everything that you need in an up-to-date composing room.

**No. 12005-XE Cabinet**

Here is a typical type cabinet from Hamilton's new catalog . . . the No. 12005-XE. It has plenty of room for all necessary type spacing material and working facilities. Full information on it is given in the new No. 22 catalog on page 4. Complete lines of working top and flat top cabinets for both job and newspaper composing rooms are also shown in detail.



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Send me a copy of the new Hamilton Printing Plant equipment catalog No. 22.

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PRINTING PLANT EQUIPMENT

# Cebotype Plastic Base Printing Plates

A new plastic base printing plate is being furnished by Boutwell-Foster Company, Inc., 2722 Seventh Ave., South, Birmingham, Ala. The inventor is C. Ed. Boutwell. The plates are known as Cebotypes and are molded from a material called "Cebite." The plates are of an ivory color and are slightly flexible. They are 27% of the weight of type metal. Mr. Boutwell states the largest single plate which can be made by his company is 18 in. by 22 in.

Cebotype plates are said to be resistant to wear. The longest run recorded for a set of Cebotype plates is reported to be 1,275,000 impressions with very slight show of wear.

Claims are as follows: (1) A Cebotype plate attracts the ink film which lies flat upon the plate until delivered to the paper. (2) There is no porosity in the material. Because of this, a light ink film is required in halftone printing. (3) The same register is obtained as exists in the original forms from which the plates are molded, there being no loss of detail or distortion of surfaces. (4) The finest screen duplicated at this time is 150-line. (5) No squeeze is necessary to force the ink film out to the edges of the printing surface. As a result, the light impression characteristic of offset printing can be achieved even on very thin paper. The sharpness of relief printing is secured with "kiss pressure" as in offset. (6) Cebotype plates are said to give faithful reproduction of originals with respect to delineation of details. No stretch in curving. The plates may be made for flatbed or rotary color register work. They may be vulcanized on metal bases for high-speed rotary work. (7) Cebotype plates are not subject to corrosion or defacement from atmospheric conditions and will keep indefinitely. (8) Cebotype molds are permanent. As many duplicates as desired may be made from the same mold. (9) Gasoline or benzine is suitable for cleaning these plates. Some cleaners contain a solvent for Cebite which will damage the plate.

The making of Cebotypes is described by Mr. Boutwell as follows: These plates are duplicates of either type forms or photoengravings, or a combination of both. The forms are locked with bearers in the same way as for electrotyping. The form goes through a molding press and a mold is made in a period of 11½ min. This mold may be used for making any number of duplicate Cebotype plates.

"Cebite" Sheeting is placed upon the mold, and both are put into a heated hydraulic press which is closed and the plates formed under heat and pressure. They are cooled before removing from the press, stripped from the mold and the surplus material is trimmed off.

The plates are then shaved upon a shaving machine which exerts considerable pressure to give an equal distance between the printing surface and the entire back surface of the plate. Therefore, if the original has had small deviations in uniformity of surface, the condition will be corrected in the shaving process.

After shaving, the plates are ready for mounting and routing. They are mounted on wood or metal through vulcanizing or the use of tacks. The finished plate may be curved through the use of a special curving machine which does not distort or cause the material to flow as the curve is put into the material.

The time required to make a Cebotype Plate is from 3½ to 6 min. after the mold has been made. In addition to this, there is routing and curving time. Curving time is about 8 min. to which is added routing and mounting time depending upon the particular job.

*This illustration of C. Ed Boutwell, developer of Cebotype Plastic Base Printing Plates and the article at the left were printed direct from Cebotype plates. Plates are molded, are of ivory color, are slightly flexible and are 27% the weight of type metal.*

*Plates may be mounted flat or curved for rotary printing. Longest run yet reported is 1,275,000 impressions.*

## Champion at Southern Paper Festival

Prominent at the First Annual Southern Paper Festival, held in Savannah, Ga., on April 17, 18 and 19, was the 14 ft. by 20 ft. exhibit of The Champion Paper & Fibre Co. A prominent feature of the Champion Exhibit and one that created a great deal of interest, was the marking on the hand-painted map, by a system of lights, the five cities in which are located Champion plants. The lights were all in one color. By an ingenious arrangement the lights could be turned on or off separately or all at once. In addition to the light for each city where a plant is located, a transparent picture of each plant with back lighting was inserted at the location. Champion plants at Hamilton, O.; Canton, N. C.; Houston, Tex.; Sandersville, Ga., and Knoxville, Tenn., were shown on the map. Operated on another electrical circuit, the locations of Champion merchants in the Southern states were shown by means of different color lights. Samples of raw materials were displayed on the counter in transparent containers.

Alexander Thomson, Jr., Champion's advertising manager, planned, supervised construction and had charge of the display. Other company executives in attendance were W. M. Benzing, Sales Manager, Canton Div.; C. A. Labor, Atlantic States Sales Office Manager; J. R. Aust, Southern States Sales Office Manager, St. Louis; Walter J. Damtoft, Assistant Secretary, and Charles Smith, Wood Buyer.

*Advertising Manager Alexander Thomson, Jr., is rather proud of Champion Paper & Fibre Company's display at Southern Paper Festival.*

## Make Tour of Inspection

Senior students and staff members of the Department of Printing at Carnegie Institute of Technology visited several cities on an inspection tour during the week of April 3 to 8. The purpose of the inspection tour was to provide an opportunity for the study of production and management problems in large printing and publishing plants and to obtain first-hand information on specialty printing. Equipment manufacturing plants were also among those visited.

The firms whose plants were visited included the following: Springfield, Ohio: Crowell Publishing Company; Dayton, Ohio: McCall Corporation; Hamilton, Ohio: Beckett Paper Company and Champion Paper and Fibre Company; Cincinnati, O.; United States Printing & Lithograph Company, United States Playing Card Company, and Rapid Electrotype Company; Chicago, Ill.: Chicago Rotoprint Company, William F. Hall Printing Company, Ludlow Typograph Company, R. R. Donnelley & Sons Company, United Autographic Register Company, and Miehle Printing Press & Manufacturing Company.

*The Boss said:*

**"TELL PUBLISHERS WE'LL SAVE THEM 40% IN STEREO FUEL . . . . .**

***But, be Conservative about it"***

Now, I ask you! How can you be conservative about that?

Suppose Congress decided to cut the income tax 40 percent? Suppose scientists discovered how to lengthen our lives 40 percent?

Suppose Detroit announced a 40 percent reduction in automobile prices? How would you handle the story? Conservatively? Sure, you'd get out a nice conservative EXTRA, with headlines in a conservative magenta! But, let us state without tub-thumping or bazoo accompaniment that Kemp agrees in writing, to install in your plant Kemp Immersion Melting equipment to be purchased by you only if it cuts fuel consumption 40 percent (or more).

And if you are conservatively interested, you have a warm but conservative invitation to write for fuller details to **The C. M. Kemp Mfg. Company, 405 East Oliver Street, Baltimore, Maryland.**

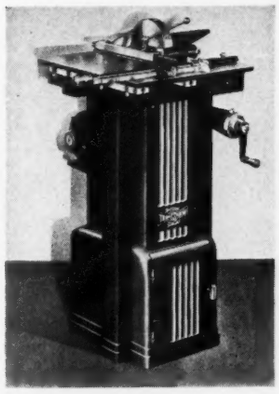
**KEMP of BALTIMORE**

**SAW-ROUT-CAST**

*with Greater Speed and Accuracy*

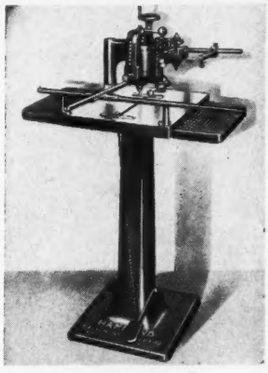
*with*

**HAMMOND**



**Glider TrimOsaw**

*A Size and Type for Every Plant*



**Router**

*Both Radial and Stationary Head Type*

**Easy Kaster "8"**

*Also 5 and 6 Column Models*

Every Hammond Product has the commanding leadership in its field . . . because of much greater operating ease, speed and accuracy. Hammond products will do your sawing, routing and casting better . . . much better, and Hammond guarantees it. True in 8000 plants and can be in yours. Ask for "PROOF".

Hammond Machinery Builders INCORPORATED

KALAMAZOO, MICHIGAN, U.S.A.

**1604 DOUGLAS AVENUE**

# Patents

## Recently Granted by U. S. Patent Office

### Bookbinding:

2,151,991. MACHINE FOR CREASING THE JOINTS OF BOOKS. Carl Schramm, North Coventry, Conn., assignor to The Smyth Manufacturing Company, Hartford, Conn., a corporation of Connecticut. Application February 12, 1937, Serial No. 125,443. 24 Claims. (Cl. 11—1.)

1. A machine for creasing the joints of books which comprises a frame, mechanism for advancing books that have their covers adhered to the sides, in succession, step by step, along the frame, a plurality of pairs of reciprocatory creaser jaws supported by the frame each side of the path of the books, and arranged to engage and crease the covers in lines parallel with and a short distance in from the edges of the backs of the covers and books, mechanism for opening the pairs of creaser jaws from the path of the books, and mechanism for closing the pairs of creaser jaws against the opposite sides of the covers of the books and exerting heavy pressure along the line of their joints when the books are stationary.

### Composing Machines:

2,151,366. WEIGHT COUNTERBALANCING MECHANISM FOR THE MAGAZINES OF MATRIX COMPOSING AND LINE CASTING MACHINES. Christian Augustus Albrecht, Berlin, Germany, assignor to Mergenthaler Linotype Company, Brooklyn, N. Y., a corporation of New York. Application October 19, 1936, Serial No. 106,414. In Germany June 13, 1936. 9 Claims. (Cl. 199—45.)

1. In a typographical composing machine, the combination of a plurality of matrix magazines, means for raising and lowering the magazines to bring one or another into operative position, and means for counter-balancing the weight of the magazine structure, the means comprising a plurality of extensible springs connected in series and disposed in such relation that the opposite ends of the compound spring system are brought into substantially closer proximity to each other than if the springs were disposed end to end in a straight line.

2,151,367. JUSTIFYING SPACEBAND. George W. Allison, St. Albans, N. Y., assignor to Mergenthaler Linotype Company, a corporation of New York. Application November 17, 1937, Serial No. 174,960. 18 Claims. (Cl. 199—68.)

1. A justifying spaceband including, in combination, a pair of relatively movable wedge-shaped members presenting inner surfaces in facewise bearing contact and other surfaces in edgewise contact for guiding the members in their relative movement, and a free-fitting connection between the members acting solely to hold them against facewise movement.

2,151,396. SPACEBAND FOR MATRIX COMPOSING AND LINE CASTING MACHINES. Wilhelm Sperling, Berlin, Germany, assignor to Mergenthaler Linotype Company, Brooklyn, N. Y., a company of New York. Application January 11, 1937, Serial No. 119,967. In Germany January 17, 1936. 5 Claims. (Cl. 199—68.)

1. A spaceband for a matrix composing and line casting machine comprising relatively movable members, wherein one of the members is provided with a part secured thereto by inter-engagement of portions suitably shaped to permit such inter-engagement by a relative movement of the member and part in their own plane.

2,151,397. SPACEBAND FOR MATRIX COMPOSING AND TYPE LINE CASTING MACHINES. Wilhelm Sperling, Berlin, Germany, assignor to Mergenthaler Linotype Company, Brooklyn, N. Y., a company of New York. Application August 6, 1937, Serial No. 157,702. Renewed September 13, 1938. In Germany December 17, 1936. 6 Claims. (Cl. 199—68.)

1. A spaceband for a matrix composing and type line casting machine comprising relatively movable members, wherein one of the members is formed of parts having suitably shaped portions to be detachably assembled by interfitting engagement and being adapted to be held together by their assembly with the other member to form the complete spaceband.

2,251,583. TYPE AND METHOD AND APPARATUS FOR PRODUCING THE SAME. George Edmon Brinkerhoff, Washington, D. C. Application January 5, 1938, Serial No. 183,544. 12 Claims. (Cl. 199—47.)

1. In a font of type, a character having upper and lower symbols, and a division line, the symbols and division line having narrow and elongated base portions disposed in relatively movable parallel relation and paralleling the type line so as to permit of relative positioning of the symbols on opposite sides of the division line in properly spaced relation with respect to each other and with respect to the division line.

2,152,009. MOLDING DEVICE. Harry C. Zauner, Dayton, Ohio. Application December 30, 1938, Serial No. 248,481. 8 Claims. (Cl. 199—84.)

1. In a casting machine for molding type characters and the like, the combination including a base plate having an orifice interconnected to a source of molten metal, a mold assembly adjustably mounted upon the base plate and cooperating therewith to form a mold cavity, and means for adjustably interconnecting the mold cavity to the base plate, the means including rack means interconnected to the mold assemblyand a gear rotably mounted in the mold base plate and meshing with the rack so that as the gear is rotated the mold cavity is shifted relative to the orifice.

2,152,209. TYPE COMPOSING MACHINE. Frank H. Poeppelmeier, Dayton, Ohio, assignor to Dayton Type, Incorporated, a corporation of Delaware. Application April 12, 1937, Serial No. 136,244. 21 Claims. (Cl. 276—18.)

1. In a type composing machine, a type magazine, an ejector, a wide belt passing below the magazine to receive the type discharged therefrom and to conduct it to the ejector, and means for discharging type feet first from the magazine upon the belt for carriage by the latter to the ejector.

2,153,150. TYPOGRAPHICAL MACHINE. Walter H. Medford, Brooklyn, N. Y. Application January 15, 1938, Serial No. 185,084. 5 Claims. (Cl. 199—53.)

1. In a typographical machine which has a mold and which has a pot which is movable towards and away from the mold, a guard pivotably mounted on the pot, and means operative to turn the guard relative to the pot so that the guard is moved over the top of the mold when the pot is moved to casting position.

2,153,912. TYPOGRAPHICAL SLUG CASTING MACHINE. John Ernest Billington, deceased, late of Crewe, England, by Mary Ellen Billington, executrix, Crewe, England, and Richard Henry Scott, Enfield, England, assignors to Linotype and Machinery Limited, England, a British company. Application May 18, 1937, Serial No. 143,306. In Great Britain May 26, 1936. 18 Claims. (Cl. 199—50.)

1. A typographical slug casting machine comprising quadding means adapted to be connected to a line clamping jaw when desired, and means for automatically effecting the connection when the line of matrices composed is of less than a pre-arranged length, the latter means being rendered inactive by a matrix line of such prearranged length.

### Feeding, Folding, Delivery:

2,151,073. SHEET SEPARATOR. Frank R. Beiluche, Racine, Wis. Application October 28, 1937, Serial No. 171,509. 13 Claims. (Cl. 271—20.)

1. In a sheet separator: a combing wheel operatively engageable with the top of a plurality of sheets to buckle the same; a suction cup for engaging the topmost sheet at its buckled portion; positively driven means for raising and lowering the suction cup; yielding means tending at all times to lift the combing wheel off the sheets; pneumatic means for lowering the combing wheel onto the sheets; and valve means responsive to the sealing of the suction cup by the topmost sheet for rendering the last named pneumatic means inoperative so that the sealing of the suction

### Patent Papers

*Printed copies of patents are furnished by the United States Patent Office at 10 cents each. Address the Commissioner of Patents, Washington, D. C. and enclose 10 cents for each patent paper wanted.*

## *Graphic Arts Exposition*

As details for the Fifth Educational Graphic Arts Exposition are unfolded by Manager Fred W. Hoch, it becomes evident that a veritable fairyland of mechanical equipment and supplies will be exhibited at the Grand Central Palace, New York, from September 25 to October 7. Manager Hoch announces 19 additional firms have taken space since publication of the list of exhibitors in the April *Printing* EQUIPMENT *Engineer*.

With the addition of the 19 additional exhibitors, 33,817 of the 46,553 sq. ft. of floor space on the main and mezzanine floors is now under contract. Options have been requested on a number of the remaining booths.

The list of exhibitors so far as announced is as follows:

American Type Founders Sales Corp.
Bingham's Son, Samuel, Mfg. Co.
Binks Manufacturing Company
Blatchford, E. W., Co.
Boston Wire Stitcher Co.
Brandtjen & Kluge
Bunn, B. H., Co.
Carlson, Frank P., Co., Inc.
Challenge Machinery Co.
Chandler & Price Co.
Christensen Machine Company
Cline Electric Manufacturing Co.
Cottrell, C. B., & Sons
Craftsman Line-Up Table Corp.
Dayton Rubber Manufacturing Co.
Dexter Folder Company
Disston, Henry, & Sons
Eastern Manufacturing Company
Embossograph Process Company, Inc.
Force, William A., & Company, Inc.
Fuller, E. C., Company
Gegenheimer, Wm., Inc.
Hamilton Mfg. Company
Hammond Machinery Builders, Inc.
Harris-Seybold-Potter Company
Heinrich, H. H., Inc.
Imperial Type Metal Company
Inland Printer, The
Intertype Corporation
Kelly Metal Corporation
Kimble Electric Company
Krug Electric Company
Lanston Monotype Machine Co.
Ludlow Typograph Company
Mergenthaler Linotype Company
Miehle Printing Press & Mfg. Co.
Miller Printing Machinery Co.
Modern Lithography
National Ass'n of Printing Ink Makers
New Era Manufacturing Co.
Payne & Walsh Corporation
Prentiss, Geo. W., & Co.
Printing Machinery Co.
Printing News
Production Year Book
Rapid Roller Company
Rosback, F. P., Company
Rouse, H. B., & Co.
Smyth Manufacturing Co.
Stereotype Equipment Co.
Thomson-National Press Company
United American Metals Corp.
U.P.M. Kidder Press Company, Inc.
Vandercook & Sons, Inc.
Warren, S. D., Company
Webendorfer-Wills Co., Inc.
Wetter Numbering Machine Co.

ZINK CUT CEMENT PRICES in the United States: 75c per large tube; $6.00 per dozen tubes; $5.00 per dozen tubes in gross lots. Stand-A-Lone Holders 2 for 25c, per doz. $1.00.

**YOUR reputation for fine engraving will stand secure when you specify Zomo Electric Zinc and A-Z Alloy. Most shops alert to the varied requirements of their customers, use them both. They are a well-matched pair which offer the stamina and quick, clean etching quality to cover every line, fine halftone, and color job. . . . A-Z Alloy for long printing runs and heavy mat work, and Zomo Electric Zinc for all commercial and newspaper work. Look for the trademark on the back of every sheet.**

*You can order A-Z Alloy and Zomo Electric Zinc plain or BACKOTED from leading metal suppliers in the United States, Canada, and England.*

**ZOMO ELECTRIC ZINC**
**AND**
**A-Z ELECTRIC ALLOY**

# Now 30% Faster

The E. A. Booth Rubber Company announces that the "setting time" of Booth's Zink Cut Cement has been shortened 30%. From the time of its application until the cut is ready for use, the cement sets in 30% less time. This saving has been accomplished without in any way impairing the effective adhesive qualities which have made Booth's Zink Cut Cement so well known throughout the world. This cement fastens zinc and copper cuts, electros, stereos, shell casts and plastic plates to wood or metal bases.

The E. A. Booth Rubber Company has always endeavored to improve all of its products consistent with good performance so that its customers may have maximum benefits resulting from the use of its products.

Foreign Distributors:
SEARS, LTD.
Toronto, Montreal, Winnipeg, Vancouver, Canada
JUNGER & JUNGER
Goteborg, Sweden

**E. A. BOOTH**
**RUBBER COMPANY**
364 ROCKEFELLER BUILDING · CLEVELAND, OHIO

# THE LATEST LITERATURE ON

**Circle the numbers on the coupon indicating the literature or information you want. Supply your name, title, department, firm name and address—we do the rest. Manufacturer or Supplier will send you information or literature about the equipment or supplies you request.**

## COMPOSING ROOM

**1** TYPESETTING MACHINE—"Monotype single-type composition is uniformly accurate in both height and point size. Single types may be fitted more closely." Data upon request.

**2** ELECTRIC MOTORS—For line composing machines—"Bring reduced maintenance and production costs, trouble free operation." Cushman Electric sends complete information.

**3** MOLD DISKS—rebuilt. Magazines for Linotype machines. New catalog on parts and repairs will be sent by the Linotype Parts Company.

**4** WORK HOLDER—"Sure-grip work holder eliminates fanning, holds more slugs. Rapid Saw-swivel gauge permits fine micrometer adjustments." Details.

**5** CATALOG—Get this "72-page Hamilton catalog of modern time-saving equipment. Gives complete information on type cabinets, benches, racks, stands, bindery tables and trucks."

**6** INTERTYPE "Presents the original Futura to users of machines." Will gladly send comparative specimens.

**7** SAW-TRIMMER—"C & G Saw Trimmers, built by Milwaukee, have features worthy of your investigation."

**8** HACKER Block Leveller "affords the easiest method of accurately planing plates." Send coupon for information.

**9** KEY MIXING—"Cuts costs, saves time. Set mixed matter at speed of straight matter. Linotype has many exclusive advantages." Further information."

**10** STA-HI "is now sole distributor for the Premier Rotary Shaver. Gives great saving in time—definite accuracy—low maintenance—easy operation." Further details will be sent.

**11** LUDLOW "will send specimen sheets showing type faces specially adapted to local display composition." Use the coupon.

**12** NEW Rouse Vertical Miterer—"Cuts 700 perfect miters an hour direct from strip material." Get information on new economy model.

**13** QUOIN—"Challenge Hi-Speed Quoins cannot slip, give square lock-up, and prevent work-ups. Reduced prices." Send for data.

**14** "INCREASE production. Greater accuracy with Hammond Glider Trim-O-Saws, Routers and Easy Kasters." Free catalog.

**15** LINOGRAPH—Model 52 Linograph "has cradle for only two magazines, fast magazine action, more slugs per hour, fast mat circulation." Further details.

**16** MAGAZINES—For Linotype machines—Mold disks rebuilt. "New catalog shows many parts on which printer can save money."'

## PRESS ROOM

**17** NEW PRESS PACKING—"Paper base, rubber coating, one side oilproof. Use either with or without tympan on all types of presses." Coupon brings further details.

**18** PAPER—"Champion Paper and Fiber Co. produces a wide assortment of standard grades, as well as a large volume of technically developed papers for many special purposes."

**19** WOOD AUTOPASTER—"Gives full speed splices 98.61 times out of 100." Wood Newspaper Machinery Corporation will send printed matter.

**20** NUMBERING MACHINES—"Wetter Rotary Press Numbering Machines allow finer adjustment . . . insure better work . . . investigate."

**. . . SEND FOR FREE**

# ON EQUIPMENT AND SUPPLIES

**21** MOTORS—"Kimble motors are built especially for printing presses and other printing machines." Information will be sent.

**22** OFFSET PRESS—"Business will accept the results of modern Offset when produced on modern precision equipment." Details on Harris equipment sent on request.

**23** INKS—"Zephyr blacks, made by Sinclair and Valentine . . . speed production . . . invaluable on rush jobs." Get complete information.

**24** AUTOMATIC PRESS—"Rigid impression makes the Kluge Automatic a platen capable of producing fine printing as well as 'run of the mine' job work." Details on request.

**25** INK—"Lithographers like the sharp, clean litho colors and the faster drying which new I.P.I offset inks make possible."

**26** TYMPAN—"Sample sheets of Riegel's Treated Jute—stocked in roll widths for every press." Mention size wanted.

## STEREOTYPE DEPARTMENT

**27** SCORCHERS—"Form-O-Scorch electric scorchers are recognized as a standard of perfection in matrix drying and forming machines." Details sent.

**28** DRY MATS—"Certified Dry Mats will bring out the halftones with clarity of original print." For samples send specifications.

**29** GUMMED PACKING FELT—"Cut down expense with ready cut strips of American Publishers Supply's Gummed Packing Felt. No extra charge."

**30** DRY MATS—"Wood mats stand high in the estimation of men who know mat quality." Let them tell you about these mats.

**31** ROLLERS—Send for complete information on composition, rubber or vulcanized oil rollers manufactured by Sam'l Bingham's Son Mfg. Co.

**32** MATS—"Improved printing with economy assured with Burgess Chrome Mats." Write for information.

**33** MELTING EQUIPMENT—"Kemp Immersion Melting cuts fuel consumption 40% or more." Literature will be forwarded to you.

**34** GUMMED PACKING FELT—"Flecto," states Eastern Newspaper Supply, is "successfully used on all dry mats . . . gauges are uniform . . . easy to tear . . . will not slip."

## MISCELLANEOUS

**35** NEW FLUORESCENT LAMP—"Gives a cool blue-white light, low maintenance costs . . . eliminates shadow and eye fatigue." Coupon brings free booklet.

**36** ZINC—"Each sheet of Edes Zinc is like another—delivering the same results under the same treatment." Investigate.

**37** BEARINGS—Send for name of nearest SKF representative, who can select from more than 3000 types and sizes the right bearing for your particular application.

**38** METAL QUALITY CONTROL—Find out how Imperial's "plus plan" eliminates costly recasts and production losses and controls metal quality.

**39** ZINC—"Zomo Zinc and A-Z Alloy Backote save the engraver time." Send coupon and learn how.

**40** INFORMATION—regarding space regulations, floor diagrams and rates for the National Graphic Arts Exposition, which will be held in New York from September 25th to October 7th, 1939.

**This coupon must be filled out completely in order to secure the literature or information you request. Circle only those bulletins you particularly want. This service is *only* for production and mechanical executives.**

## For Production and Mechanical Engineers Only.

**PRINTING EQUIPMENT ENGINEER** May

**Without obligation please have the manufacturers send me literature or information circled below. (These numbers correspond to numbers on descriptive paragraphs).**

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40

PRINT YOUR NAME AND ADDRESS

NAME.....TITLE.....DEPT.....

FIRM NAME.....

STREET.....CITY.....STATE.....

# EE LITERATURE

## *Manufacturers and Suppliers Take Space for Philadelphia A.N.P.A. Mechanical Conference*

PRINTED below is corrected list of the manufacturers and suppliers who have taken display space for the Thirteenth Annual A.N.P.A. Mechanical Conference to be held at Hotel Benjamin Franklin, Monday, Tuesday and Wednesday, June 5, 6 and 7. At the time of going to press, 34 companies have rented 61 of the 73 available booths. The list of exhibitors is as follows:

Booth, E. A., Rubber Company
Chemco Photoproducts Company
Cushman Electric Company
Eastman Kodak Company
Gaebel, Arthur H.
Hammond Machinery Builders
Imperial Type Metal Company
Klean-O-Mat Corporation
Lake Erie Engineering Corporation
Linograph Company
Linotype Parts Company
Ludlow Typograph Company
Master Etching Machine Company
Matrix Contrast Corporation
Mergenthaler Linotype Company
Milwaukee Saw Trimmer Company
Morrill, Geo. H., Company
National Steel & Copperplate Company
New England Newspaper Supply Co.
Ostrander-Seymour Company
Pitman, H. M., Company
Printing Equipment Engineer
Rapid Roller Company
Richards, J. A., Company
Robertson, R. R.
Rolled Plate Metal Company
Rouse, H. B., Company
Smith, Dudley S.
Sta-Hi Newspaper Supply Company
Stereotex Machinery Company
Tingue, Brown & Company
United American Metals Corporation
Vandercook & Sons
Wallin Manufacturing Company

cup by the topmost sheet is accompanied by immediate lifting of the combing wheel.

2,152,288. SHEET DELIVERY MECHANISM FOR PRINTING PRESSES OR THE LIKE. Frederick W. Seybold, Westfield, N. J., assignor to American Type Founders, Incorporated, Elizabeth, N. J., a corporation of New Jersey. Application May 11, 1937, Serial No. 142,043. 22 Claims. (Cl. 271—75.)

1. In a printing press having an impression cylinder, means for driving the cylinder at a constant angular velocity, and an endless tape conveyor disposed with its receiving end adjacent the cylinder and its discharge end adjacent the point of delivery of the printed sheets; means having a single connection with the cylinder driving means to drive the conveyor, the means comprising a plurality of trains of epicyclic gearing adapted to convert the uniform velocity of the driving means to a variable velocity and imparting it to the conveyor, whereby the conveyor is adapted to receive a sheet from the cylinder while moving at approximately the peripheral speed of the cylinder and to discharge it at a reduced speed.

2,154,022. DEVICE FOR AUTOMATICALLY STOPPING SHEET CONVEYORS FOR PRINTING OR LIKE MACHINES. Headley Townsend Backhouse, London, England. Application February 12, 1935, Serial No. 6,224. In Great Britain March 3, 1934. 18 Claims. (Cl. 192—126.)

1. In a machine for feeding in succession sheets of paper or the like along a track from one operating station to a second operating station by conveyor mechanism, trip mechanism to stop the conveyor operable on conveyance of a misplaced sheet, the trip mechanism comprising a side arm positioned alongside the track adapted to be engaged by that part of the misplaced sheet which extends laterally of the track beyond the normal line of the edges of the sheets.

## Platemaking:

2,154,252. ENGRAVING OR ROUTING MACHINE. Jacob Shilkoff, New York, N. Y., and Clarence P. Wood, Monmouth Beach, N. J.; said Wood assignor to said Shilkoff. Application August 4, 1936, Serial No. 94,188. 19 Claims. (Cl. 90—13.5.)

1. In a machine a work supporting bed, a plurality of tools movable over the bed, and means for singly and alternately engaging the tools with a piece of work mounted on the bed.

2,150,691. COLOR REPRODUCTION. Leopold D. Mannes and Leopold Godowsky, Jr., Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey. Application March 20, 1937, Serial No. 132,105. 4 Claims. (Cl. 95—2.)

1. In a method for producing color-corrected pictures, including the steps of exposing to light an element having a plurality of superposed layers each sensitive to a different primary color, and converting the element into a corresponding subtractively colored positive picture, in which at least one of the subtractive colors has a region of inadequate transmission, the step of extending the sensitivity of the corresponding sensitive layer into the region in inverse proportion to its transmission.

2,150,692. DYE COMPOSITION AND ART OF COLORING THEREWITH. James G. McNally and John A. Leermakers, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey. No Drawing. Application September 16, 1937, Serial No. 164,188. 16 Claims. (Cl. 8—58.)

1. A stable dye composition comprising an insoluble dye having affinity for organic derivatives of cellulose and as a dispersing agent therefor a water soluble cellulose acetate.

2,150,711. MATRIX ROLLING MACHINE. Herbert C. Behrens, Battle Creek, Mich., assignor to Duplex Printing Press Company, Battle Creek, Mich., a corporation of Michigan. Application May 14, 1938, Serial No. 208,015. 17 Claims. (Cl. 101—12.)

## *Farrar Prognosticates*

AT the April meeting of the New York Young Printing Executives Club, Gilbert P. Farrar, typographic expert and consultant, predicted the printing of a form by means of sensitized light—running 5000 copies through in five seconds. He forecast the modern newspaper being printed without typesetting, electros and stereos at one-fifth of present cost and run in two or three colors. Color, he asserted, will play a most important part in merchandising. He concluded his address with the advice: "Find the market, the machinery to fit the market, the men to operate the machinery, manage the men and machinery to make money."

2,149,487. HALF-TONE ENGRAVING AND APPARATUS FOR AND METHOD OF MAKING THE SAME. Myron C. Ziberman, Brooklyn, Leander O. Thunberg, Bronx, and Leo V. Skinner, New York, N. Y. Application May 15, 1934, Serial No. 725,716. Renewed July 28, 1938. 6 Claims. (Cl. 178—6.6.)

1. Apparatus for photoelectric engraving comprising a picture scanning device, a support for a picture or pattern to be reproduced on a plate, a tool carrier, a plate cutting tool mounted thereon, a support for a plate, means for effecting relative reciprocative movement between the scanning device and the picture support, means for effecting relative reciprocative movement between the cutting tool carrier and the plate support, means for moving the tool carrier into plate cutting position prior to each relative movement between the plate and the tool in one direction and means for moving the tool carrier out of plate cutting position prior to each relative movement between the plate and the tool in the opposite direction, means operatively connected to the scanning device for actuating the cutting tool in accordance with the occurrence of light and dark portions respectively on the picture or pattern carried by the picture support, including an electro-magnet mounted on the carrier and having an armature operatively related to the tool in a manner to effect alternate movement of the tool into and out of cutting engagement with the plate, wherein the means for varying the duration of impulses in the magnet coil circuit include a ray sensitive screen for producing a light spot as the result of ray impact thereon, and means for bending the ray to vary the position of the light spot on the screen, the ray bending means including separate circuits having portions respectively arranged and adapted to produce ray deflecting forces operative in directions at 90 deg. to each other, one of the circuits having controlling devices to produce an E.M.F. of varying value and the other of the circuits having controlling devices to produce impulses of predetermined frequency and duration.

2,149,846. PROCESS FOR PRINTING. Arden R. Johnson, Elmhurst, Ill. Application November 14, 1935, Serial No. 49,701. 8 Claims. (Cl. 95—5.6.)

1. A process for forming printing plates consisting in exposing a photographic light sensitive coating on a plate to a beam of light corresponding inversely in intensity to the light originally passing from the object the image of which is to be printed and simultaneously casting fine shadows on the coating throughout its surface, in then developing the coating, and in then dissolving out therefrom the light exposed portions, whereby the plate with its intaglio surface thus formed may be used for printing.

2,150,281. METHOD OF PRODUCING PRINTING SURFACES FOR INTAGLIO PRINTING. Josef Koch, Essen, Germany. Application October 19, 1937. Serial No. 169,785. In Germany February 28, 1935.

1 Claim. (Cl. 95—5.6.)

A method of producing printing surfaces for intaglio printing, characterized in that the metal of the printing surface to be produced is provided with a uniformly deep screen, and in that the letterpress and images are reproduced on a light sensitive film mounted upon a suitable support, the film corresponding in thickness to the depth of the screen, whereupon the film after being softened or soaked is pressed down with the film side upon the untreated screened metal surface so that the light sensitive film enters the hollows of the screen, after which the film support is removed, and the film is developed.

2,150,401. PRINTING APPARATUS. Henry Van Riper Scheel, Passaic, N. J. Application September 13, 1935, Serial No. 40,399. 14 Claims. (Cl. 101—56.)

1. Apparatus comprising a printing element, means for applying pressure upon the printing face of the element, means for moving sheet material in the direction of a face dimension thereof and between the printing element and the pressure means, the printing element and the pressure applying means being supported and arranged to be moved together into and out of the relation to the sheet in a direction generally parallel to the face of the sheet in its printing position.

2,150,522. REGISTRATION OF ARTICLES FOR MULTICOLOR PRINTING. Frederick Shurley and Queenie Halford Shurley, Windsor, Ontario, Canada, assignors to Ceramic Machinery Distributors Limited, Windsor, Ontario, Canada, a company of Canada. Application March 23, 1937, Serial No. 132,604. In Canada February 8, 1937. 18 Claims. (Cl. 101—115.)

2. In combination, means for printing on an article having an initial imprint previously arranged thereon, a carriage for delivering the article in a predetermined position to the printing means, a photo-electric unit, a source of light focused on the photo-electric unit, the article in the carriage being movable between the photo-electric unit and the light source and adapted to intercept the beam of light, and mechanism controlled by the photo-electric unit for maintaining the article in the carriage in a predetermined position after it passes through the light beam, whereby the printing means will make a subsequent imprint in correct relation to the initial imprint when the article is delivered thereto.

2,150,672. REVERSING CLUTCH FOR PRINTING PRESSES. Harry Davis, New York, N. Y., assignor to Wood Newspaper Machinery Corporation, New York, N. Y., a corporation of Virginia. Application June 13, 1936, Serial No. 85,045. 2 Claims. (Cl. 192—67.)

1. In a reversing clutch, the combination with a power transmitting shaft, of a gear rotatably mounted thereon, having, on its inner face, a circular series of holes provided with a hard interior surface, a clutch hub fixed to the shaft, a ring slidably mounted on exterior surface of the clutch hub and movable to different positions longitudinaly of the shaft, the clutch hub having at opposite ends a circular series of holes having hardened surfaces, a

*(Continued on Page 53)*

## *More Business Through Better Production*

"I wonder what has hit the sales staff," queried the advertising manager. "I have talked creative selling for years and now they all get the idea at once—none of them would think of tackling a new prospect without a layout and a picture."

"It's just better production," replied his assistant. "Makes them all picture conscious. I think that change to Certified Mats had a lot to do with it."

*For dependable stereotyping, rely on Certified Mats, made in the U. S. A.*

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9 Rockefeller Plaza, Dept. M,
New York, N. Y.

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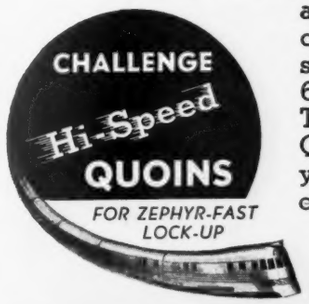
DRY MATS

## HERE'S THE QUOIN *That Will Cut Your Lock-Up Costs 70-80%*

● Maybe that sounds too good to be true. Nevertheless, it's precisely what Challenge Hi-Speed Quoins are doing in leading shops all over the country . . . and most assuredly will do for you.

Instead of 5 to 8 ordinary quoins, you use only 2 Challenge Hi-Speed Quoins . . . then give each a turn of the key, and it's securely locked. All done in a jiffy . . . and just right! No possibility of slippage—less chance of work-ups because of powerful direct expansion. The handiest quoin you have ever seen . . . always accurate . . . utterly dependable . . . and a whiz for speed. Made of cadmium-plated tool steel. Six lengths—4½, 6, 7½, 9, 10½ and 12 inch. Try Challenge Hi-Speed Quoins just once and you'll wonder how you ever got along without them. Write for data and prices today.

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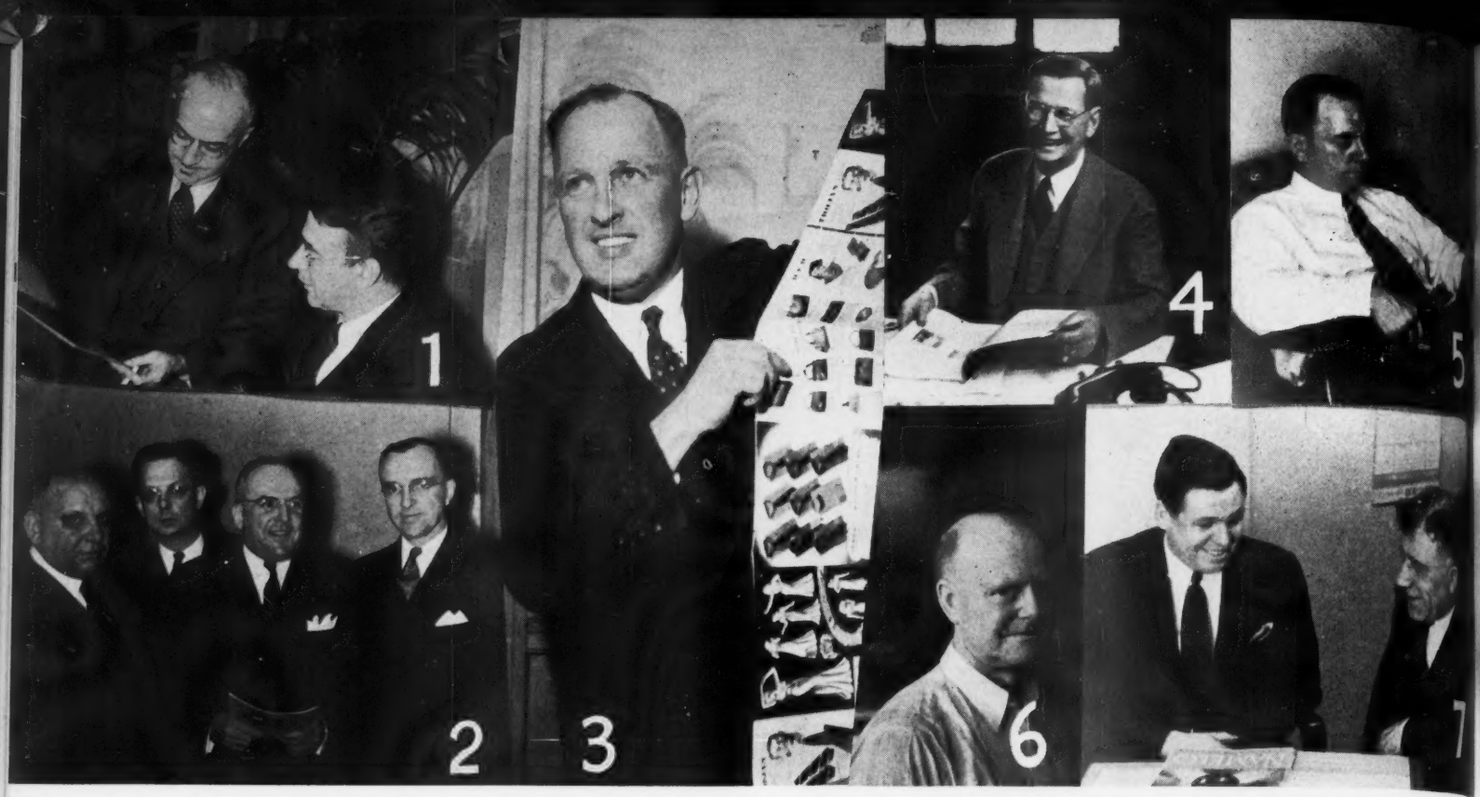
**THE CHALLENGE MACHINERY CO.**
GRAND HAVEN, MICHIGAN
CHICAGO, 17-19 E. Hubbard St.—200 Hudson St., NEW YORK



## Meet Up With Some Printing Executives, All of Whom Have Done Just a Little Bit More Than "Work at the Business"

*1—Sol Hess, Associate Art Director, Lanston Monotype Machine Company, and Otto Ege, Head of Teachers Training, Cleveland School of Art. Professor Ege and Mr. Hess are old friends. This picture was taken at a recent meeting of the Cleveland Craftsmen's Club, at which Mr. Hess spoke on "History, Development and Use of Types."*

*2—Ollie G. Fricke, Fifth District Representative, International Association of Printing House Craftsmen (lives in Dayton, O.); Ernie Engel, Secretary, Cleveland Typothetae; John M. Callahan, President, International Association of Printing House Craftsmen; William Cope, General Manager, Stratford Press and President of Cleveland Typothetae.*

*3—Alfred M. Geis, Manager, Alco Gravure's Baltimore plant, eats, sleeps and dreams gravure printing. When speaking, he never lets down for a moment.*

*4—Jim Doyle became 80 years of age in January. Perhaps you've heard of him? He's Chairman of the Board, Doyle & Waltz Printing Company, Cleveland. Many of his devices for preventing offset and neutralizing static are in use in pressrooms throughout the country.*

*5—Herbert Stanger, Production Manager, Christian Science* Monitor, *Boston, relaxes. He's interested in better printing for publications.*

*6—Floyd Campbell, Stereotype Superintendent, the Columbus (O.)* Dispatch, *looks here as though everything is all right with respect to the last edition—in fact, he watches every edition to see that the plates are just right.*

*7—Wilford Coddington, Composing Room Superintendent, and Joe Cory, Chief Machinist, Youngstown* Vindicator, *paid a visit to the editor's office recently. Both were drafted by Mechanical Superintendent Leslie Griner to help with* Vindicator *production and composing room machine maintenance.*

### Open House in Cleveland

Approximately 500 Cleveland and vicinity printing executives, plant superintendents and pressmen attended Open House held by the Cleveland Branch of American Type Founders from April 19 to 22. The event was occasioned by announcement of the Kelly Clipper press. Two presses were operated on actual work throughout the several days at speeds ranging up to 5000 i.p.h. A Kelly Clipper chassis operating under power showed visitors the bed motion. Several prominent executives of ATF were present. Cleveland Manager Ewald Raasch reports interest among the visitors ran high.

### Webendorfer-Wills Expands

Webendorfer-Wills Co., Inc., manufacturer of letterpress and offset press equipment, has under construction at the present time an addition to its Mount Vernon, N. Y., plant. The new quarters will be used to extend the activities of the drafting department and increase the size of the present experimental laboratory.

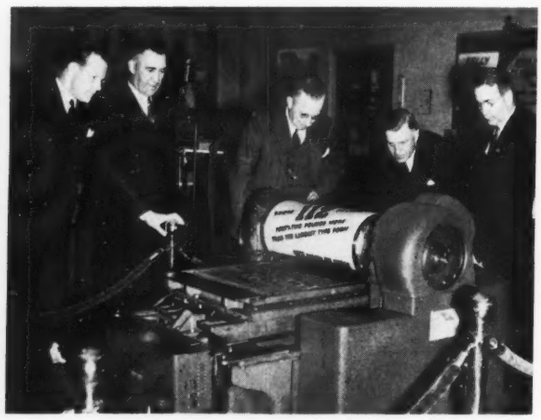
### G. E. Officers Re-elected

At the meeting of the board of directors of the General Electric Company on April 28, Owen D. Young was re-elected chairman of the board and Gerard Swope president of the company. All other officers of the company were also re-elected.

### Addition to Long Island Factory

An addition was made recently to the Long Island City factory of the Ideal Roller & Manufacturing Company.

The building adjoining the factory at 21-24 Thirty-ninth Ave., was purchased, adding approximately 25% additional floor space. It is being completely remodeled and equipped to accommodate the manufacturing of Ideal's newest roller which is known as "OX."



*ATF executives critically examine stripped Kelly Clipper's bed and cylinder motion at ATF's Cleveland Branch Open House, April 19-22. Left to right: Fred Heitkamp, Vice President in Charge of Sales; Ewald Raasch, Cleveland Manager; Horton Bransford, Cincinnati Manager; Warren Lacey, Special Machinery Representative; Clinton Hicks, Chicago Manager.*

## Technical Literature

### Consolidated Coated Papers

Booklet shows demonstration printings and contains tear sheets of two Consolidated coated papers—Production Gloss Coated and Production Coated E.F. *P-Double-E File No. 3K.*

### ATF Idea File No. 2

Contains suggestions of Printing for the Professions, Menus, Personal Stationary and Blotters. Specimens in color. Suitable type faces used.

### Foundry Type Folders

Three folders demonstrating uses of Shadow, Huxley Vertical, and Bernhard Gothic Medium Condensed series of foundry type faces have been issued by American Type Founders. *P-Double-E File No. 1EE5.*

# FAMOUS *Bad* GUESSES

● How often production executives have said, "I can get by," and then had metal trouble snapping at their coat tails? It is no uncommon experience to make bad guesses because we humans feel most confident just before trouble occurs.

Printing plants all over the country forestall metal trouble by relying on Imperial and the Plus Plan to keep their metal supply in first class condition at all times. Because their metal is right, these plants also benefit from constant minimum casting temperatures, low drossing and lower yearly metal costs.

Other advantages are clean, sharp faces, minimum machine trouble and clean impressions.

Decide now that in your shop, metal guessing is *out*. Rely on the Plus Plan and be *sure*. Write today for full details.

**IMPERIAL TYPE METAL COMPANY**
PHILADELPHIA • NEW YORK • CHICAGO • LOS ANGELES

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**TAKES THE GUESS OUT OF TYPE METAL**

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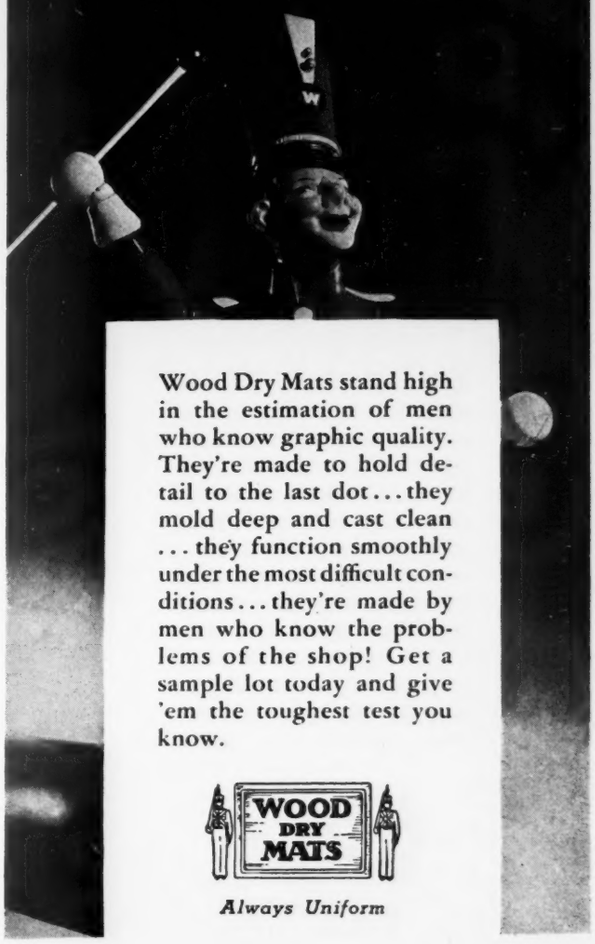
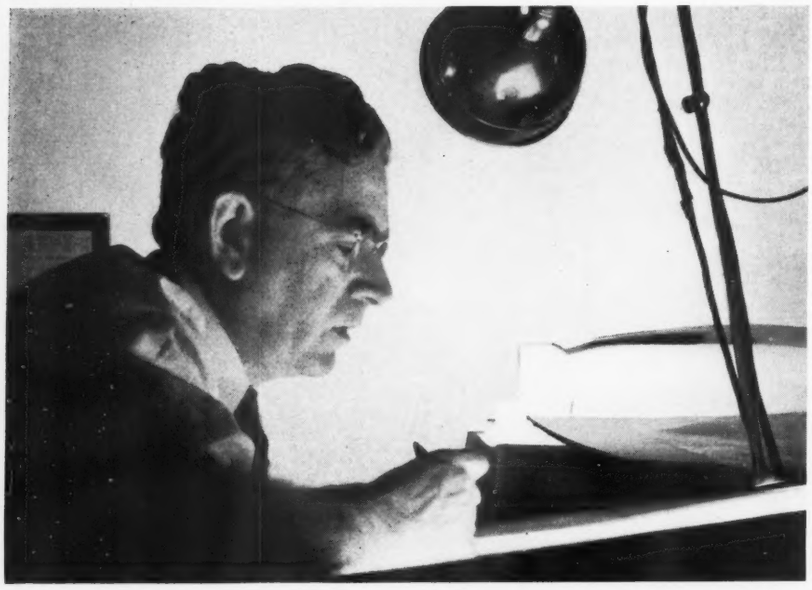
BECAUSE OF
# Perfect
# REPRODUCTION



Wood Dry Mats stand high in the estimation of men who know graphic quality. They're made to hold detail to the last dot... they mold deep and cast clean ... they function smoothly under the most difficult conditions... they're made by men who know the problems of the shop! Get a sample lot today and give 'em the toughest test you know.

WOOD DRY MATS
*Always Uniform*

**WOOD FLONG CORPORATION**
**HOOSICK FALLS**
**NEW YORK**



*Ellis Bassist's offset-lith plate-making technique discussed in accompanying article by Adam Henri Reiser*

## Who Is It?

*(Continued from Page 17)*

to dye these black instead of red for the negative, our guest always preferring this dark color for its greater opacity. When the image or print has been dyed, the glass is thoroughly dried and coated with thin collodion.

Any number of the blue print glasses may be made from the red lac, depending upon the number of colors and whether the glasses are to be kept standing. The glasses must contain register marks outside the work for sheet register and lay position in the press. They must also contain register marks for each subject as well as outlines where needed. This aids stripping, registry being obtained by fitting marks as well as the work. All stripping is done with film. This is positioned on the blue print (the color of this blue must be light enough to permit light passage and yet not too light to prevent seeing the image) and pasted to the glass in accurate register, using the paste from the back of brown sticking tape. This as well as the blue prints, red lacs, etc., are developments by our guest.

He uses glue from the back of brown sticking tape because it is preferable to transparent or opaque scotch tape, since the latter have a tendency to interfere with close contact between film and plate during exposure. Of course, the opaque tape would have the additional drawback of holding back the light, in this case introducing unwanted patches of work.

After stripping is completed, the glass plate is placed in contact with the press-plate coated with the light sensitive solution. Our guest still believes bichromated glue superior to the other forms of light sensitive solutions, and therefore employs it for his deep-etch work.

After exposure, the press-plate is developed under water, and the coating then hardened with the permanganate of potash solution, a method also developed by out guest some years ago. Staging follows in which those parts of the plate not to be deep-etched are painted with a solution of the glue coating or shellac. After thorough drying, deep-etching takes place. The iron perchloride solution works very successfully in this operation. But there are two innovations introduced to insure deep-etch success.

The first, a hot table, is a simple four-legged table with a steel surface. Just below its top a number of electrical resistance coils are installed which keep the surface of the table very warm constantly. This table is used to dry the plates and also to bake the lacquer used in the deep-etch process.

The second innovation is the cold table, quite similar to the first table, except that refrigerating coils replace the heating coils. This is the deep-etch table. The lower temperature prevents the deep-etch solution from acting too violently, thus restraining the acid from penetrating the glue stencil.

### Press-plate and Printing Helps

You must have recognized the man by now. No? Well, perhaps the remainder will furnish your clue. Aluminum plates are used throughout the process. That in itself is not remarkable, for most houses doing good color work use this metal. The remarkable thing lies in the fine grain used on these plates. Of course, these smoothly grained plates could not be used today if it were not for the perfection of a solution that is used following the finishing of the plate. The plating action (or so we'll call it) is a result of a solution developed by our guest. Because of this innovation in the form of an almost smooth plate, the 200-line screen can be used. And because of the three items combined—the smooth grain, the fine screen, and the plate preparation—a tremendous advantage is given the lithographer. It can easily be seen that very nearly a photogravure effect is attained.

In lithographing greeting cards, many types of paper are used, some of which make difficult running on the offset press. The introduction of the deep-etched plate has helped eliminate much of the great wear induced indirectly to the press plate by the paper. But some of the surfaces on these papers offer problems in the field of ink drying as well as the proper laying of the inks. Gloss fast-drying inks and the spray gun have helped overcome much of the grief. But use of these devices is only necessary where the problem arises.

To insure the success of the offset venture at Rust Craft, our guest secured the introduction of modern equipment. There is, for instance, a very fine air-conditioning system which goes far toward controlling paper and film variations. Two new overhead cameras, a 24 in. and a 40 in., offer flexible possibilities. The single-color offset presses used throughout were installed new. Modern racks contain the glass flats (lying horizontally) stored for future use.

### Constant Flux

Changes are being made continually in greeting cards so that improvements in design and ideas on paper are aimed to intrigue the consumer. This calls for the meeting of new problems and situations continuously. It means there is constant flux. It also means that many of the ideas for new cards may have to be discarded, for they may not "take." This calls for different combinations of cards, and, as a result, many changes in the makeup of sheets. To those familiar with the field, mention of this condition is unnecessary. It is symbolic of the ability and power of the man who is our guest in this writing that he initiated this lithographic project at Rust Craft, starting with one press, and, in a comparatively short time, developing the entire program to the important part of the whole it now occupies.

Most of our readers have by this time recognized our guest. He is Ellis Bassist. Hats off to this man who has made so many vital contributions to the modern lithography

### Micrometer Dial Gauges

B. C. Ames Company has issued catalog No. 51 which illustrates and describes micrometer dial gauges for impersonal measuring, size control and general testing. Company also manufactures Halftonometers, Densimeters, Tensometers, Plastometers, and other tools.

## Employment and Service

Employers, production and mechanical executives may insert notices in this department.

Items for this department may pertain to the following subjects: "Executive Wanted," "Association or Partnership Wanted," or "Position Wanted," readers referring to subjects of a personal nature such as obtaining information about addresses of executives, supplying copies of technical articles and magazines, patents for sale or requests for contacts for developing and/or financing of inventions.

Any reasonable request from an employer or mechanical executive for the printing of a notice upon a subject other than the ones listed above will be granted.

Notices may be printed under the following regulations: First insertion (maximum six lines) is free of charge. All subsequent insertions of the same item subject to a charge of 75c per line in advance.

Address all communications with box number to *Printing* Equipment *Engineer*, 1276 West Third St., Cleveland, O.

*EXECUTIVE POSITION WANTED*—in capacity of production manager, mechanical superintendent, estimator, or departmental foreman in commercial letterpress printing plant. Experienced. Will go anywhere. Reply Box 73.

*WANTED*—Expert offset press mechanic to work for reliable machinery company in New York. Assured of good salary and steady position. Submit full qualifications. Reply Box 74.

# Keeping in Touch

**FOREIGN NEWS**—A big hand from across the sea is accorded LIFE magazine in the new issue of Penrose's ANNUAL, the English authority on publications of all nations. Penrose's says this about LIFE: "The quality of rotary letterpress halftone reproduction is breath-taking. It represents the finest present development of rotary letterpress technique; the most remarkable million circulation illustrated weekly periodical in the world today." This should please LIFE and R. R. Donnelley, LIFE's printers. It pleases us, too, for LIFE with its tremendous circulation (over 2,000,000) uses IPI's instant-drying Vaporin process to achieve a quality of printing which concedes nothing to small circulation, slower-printed "class" publications.

A print job is as strong as its weakest ink

**TRY IT**—We saw a sheet printed by offset with Lithox Black, which should interest newspaper printers who are thinking of installing offset equipment. This sheet, which advertised coal, carried large areas of solid black—a black as black as the inside of a coal mine at midnight.

The New York World's Fair is described by its promoters as "a cocktail of color." Arrangements are being made, too, for those who prefer stronger ingredients in their cocktails.

**WRITE FOR IT**—Have you written for your "Keeping in Touch" booklet? It contains many of the items which have appeared in this column, and in addition, some interesting NEW material. It's yours, free.

"Fashion Is Spinach," says Elizabeth Hawes. And, to judge from the looks of some of the spring hats, spinach is fashion.

**PLEASURE**—It's a real pleasure to congratulate the 1939 prize winners in the packaging competitions, because so many of them used IPI inks. At least 14 winning packages were printed with IPI inks—six in the All-America contest, and eight of the Wolf Award packages.

It pays to "Keep in touch with IPI"

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A Laboratory Product
BURGESS Chrome MATS

When it comes to halftones Burgess Chrome Mats don't lose a dot

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## *Essay Contest Winners Announced*

NATIONAL winners chosen from 7000 entrants from 312 different schools in the third annual IPI Essay Contest, which is sponsored in cooperation with the National Graphic Arts Education Guild, were announced this month by Fred J. Hartman, educational director for the Guild and chairman of the Contest Advisory Committee.

For the third successive time, the winner of the top prize in the junior-senior division of the Contest is a California printing student. Robert Libott, 16 year old Beverly Hills high school senior, was awarded first place by the judges. His prize is a $400 college scholarship. Mr. Libott plans to follow writing as a career, and he is particularly interested in advertising and public relations work.

Second place in this division went to David Steele, 17 years old, a senior at the Wichita, Kas., East High School. He wins a trip to either the New York or San Francisco World's Fair. Mr. Steele is now employed after school and on Saturdays at the Van Tine Printing Company in Wichita.

In the freshman-sophomore division, the first prize winner is Herman Opper, a sophomore at Henry Snyder High School, Jersey City, N. J. Mr. Opper, who is 17 years old, has his choice of a trip to either World's Fair. Runner-up in this division is Junior Biggle, 15 year old sophomore from East High School, in Waterloo, Iowa. His prize is fifty dollars in cash.

The Jury selecting these winners was headed by Harry L. Gage. Other members were V. Winfield Challenger, Frederic W. Goudy, William A. Kittredge, and Henry B. Quinan.

The judges awarded honorable mentions to the following students: Junior-senior division: Richard Maliezewski, Boys Technical High, Milwaukee, Wis.; Norman Rempel, Central High, Pueblo, Colorado; Harmon Wickson, Jr., Richmond Union High, Richmond, Calif.; Richard Sieckman, Boys Technical High, Milwaukee, Wis.; Tamara Wein, Abraham Lincoln High, Brooklyn, New York; Gerald F. Gilbert, Windsor Vocational, Windsor, Ontario; Archie Seivewright, River Rouge High School, River Rouge, Mich.; Donald Dorman, John Marshall High, Rochester, N.Y.; Harold Freeman, Masonic Home and School, Fort Worth, and Hoyt Avery, Central High, Lansing, Mich.

Freshman-sophomore division: Joseph P. Sciacca, Weymouth Vocational, East Weymouth, Mass.; Daniel Hourihan, Lafayette Junior High School, Elizabeth, N. J.; Marvin Radlauer, New York School of Printing; Nicholas Therry, Portola Junior High, San Francisco; Warren Rosselot, George Washington High, Indianapolis, Ind.; M. C. Pfleger, Central High School, South Bend, Ind.; Kenneth Lapham, North High School, Denver, Colo.; Audrae Avonne, Lincoln Junior High, Santa Monica, Calif.

The IPI Essay Contest was open to high school students of printing in the United States and Canada. Entrants were required to write not more than 600 words on some phase of the subject, "The Value of Color in Printing."

### I.T.C.A. Convention

The annual convention of the International Trade Composition Association will be held on Friday and Saturday, September 29 and 30, at Belmont-Plaza, New York. Holding the I.T.C.A. convention on these two days, between the Craftsmen's Convention and that of the United Typothetae, will give trade compositors opportunity to attend all three gatherings.

### Kemp Appointments

The C. M. Kemp Manufacturing Company announces the appointment of Byron L. Ashdown, Syndicate Trust Building, St. Louis, as representative in Missouri, Kansas and part of Illinois and the appointment of Bridges-Wilson Corp., 27 Haymarket Square, Boston, Mass., as representatives in Eastern Massachusetts, Rhode Island, Maine and New Hampshire.

### Speaking Schedule

Douglas C. McMurtrie, Director of Typography, Ludlow Typograph Company, has arranged a speaking schedule as follows: May 13—Northeastern Ohio Newspaper Clinic, Kent State University, Kent, Ohio, *Modern Trends in Newspaper Typography*. May 16—Chicago Craftsmen, Furniture Mart, Chicago, *Planning Printing for Modern Needs*. May 19—Annual Newspaper Day, South Dakota State College, Brookings, S. D. *Newspaper Typography That Sells Merchandise*. May 26-27—Niagara District Conference, Printing House Craftsmen, Buffalo, *Dating Your Printing*.

**BOOTS *and* SPURS**

If ever a product was ready for the round-up, day by day, it's Edes Zinc. It is made not alone for the regular run of events but for the hell-for-leather rush that allows no time for back-tracking. Each sheet of zinc of every shipment is like another—delivering the same results under the same treatment—delivering the finest kind of engravings.

**USE EDES HARD MATRIX ZINC FOR MATRIX WORK**

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*Headquarters for Superior Brand Copper and Plymouth Brand Brass*

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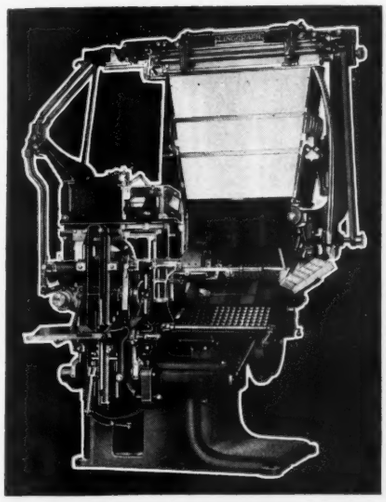
NEW ORLEANS, LA. Chemco Photoproducts Co., Queen & Crescent Bldg.
BOSTON, MASS. . . . . Allan B. Croke Co., 163 Oliver St.
CINCINNATI, O. . . . . G. C. Dorn Supply Co., 125 East Pearl St.
ST. LOUIS, MO. . Mid-West Photo-Engravers Supply Co., 514 No. 3rd St.
WASHINGTON, D. C. . E. H. Walker Supply Co., 1315—14th St., N. W.
DETROIT, MICH. . . . . Eaton-Clark Co., 1490 Franklin St.
SAN FRANCISCO, CAL. . . . . Selby Mohr, 883 Mission St.
AKRON, OHIO . . . . Metzger Photo Supply Co., 1091 So. Main St.
BUFFALO, N. Y. . . . . C. S. Illingworth, 49 Springville Ave.
MINNEAPOLIS, MINN., Thompson-Hayward Chem. Co., 909 2nd St. So.
DENVER, COL. . . . Thompson-Hayward Chem. Co., 2228 Blake St.
DES MOINES, IOWA, Thompson-Hayward Chem. Co., S. W. 1st & Granger
OMAHA, NEBR. . . . . Thompson-Hayward Chem. Co.

# PREFERRED!



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Simplicity—Dependability

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**See this LATEST ADVANCEMENT in Typesetting Machines at the ANPA MECHANICAL CONFERENCE JUNE 5, 6, 7 Benjamin Franklin Hotel Philadelphia**

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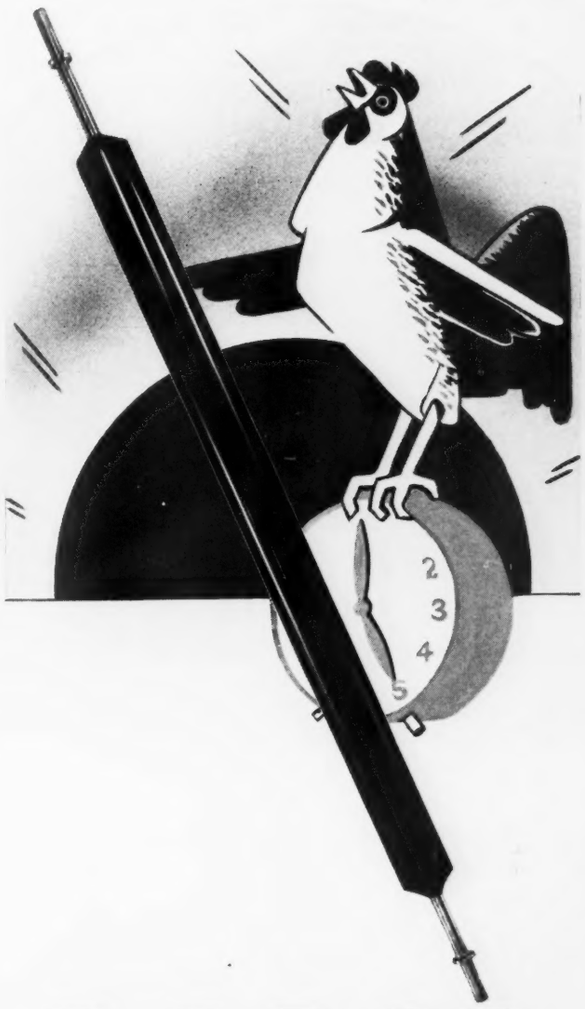


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*Composition*
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*Seasoned Rollers Give Better Performance Order Now!*

**RAPID ROLLER CO.**

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President

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# Features of New Kelly Ink Plant

IN THE new one-story ink manufacturing plant of the E. J. Kelly Company, Kalamazoo, Mich., operations are carried out on one floor to provide smooth flow of raw materials through weighing, grinding, other processing into finished inks, and then into the shipping department. The building itself is brick with continuous steel sash running practically the full length of the building on either side.

An abundance of artificial light for night work and natural light for day operation is provided. Sawtooth skylights admit glareless north light. The interior of the plant has been painted with silver and flat white to reflect as much diffused light as possible. A special type of actinic glass has been used in the matching room and laboratory. This glass absorbs ultra violet and violet rays in the sun's spectrum and eliminates glare from the east side of the room for color matching.

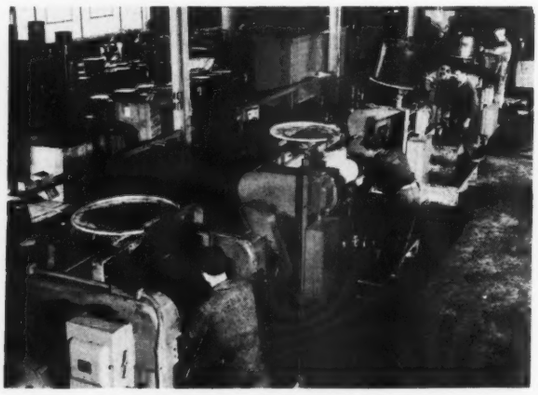
For matching at night mercury vapor fluorescent tube type lamps are provided. Each matching slab is equipped with a three-tube and reflector unit which is said to produce a light as close to northern daylight as is obtainable. Artificial lighting in the rest of the new plant has been engineered with special low yellow-content lamps in the manufacturing departments.

Of the ten ink mills, four are high speed, two medium speed, one slow speed for grinding heavy base blacks and some offset inks, and three small experimental mills. Several of the mills have been used from twenty to thirty years and were made in the Krupp Steel Mills of Germany. A refrigerated recirculating system has been installed to maintain a controlled temperature of the mill rolls.

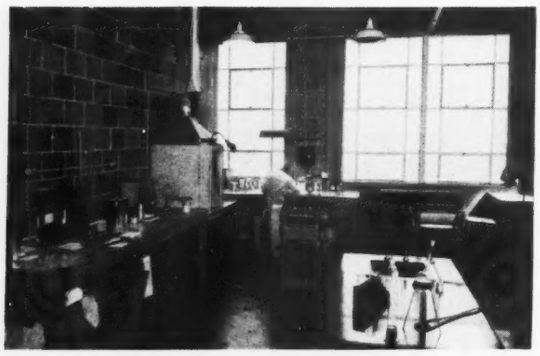
In the pressroom of the new factory is a Miehle Pony Press, an extremely fast experimental midget rotary and a platen press for testing inks. In the rear of the plant is a special installation of gas burners and thermocouple to control varnish cooks within a few degrees. The research laboratory, among other things, is equipped with a daylight lamp for checking the light-fade resistance of inks and in four hours it will produce the same amount of fading as will thirty days of June sunlight.

All lifting of tubs, drums, etc., is done with portable or monorail electric hoists.

The E. J. Kelly Company extends a cordial invitation to any production and mechanical executives passing in the vicinity of Kalamazoo to pay a visit to its new plant.



*Here are shown several of the 10 ink grinding mills in new plant of Kelly Ink plant, Kalamazoo, Mich.*



*Control of manufacturing and research operations are carried out in laboratory of E. J. Kelly Co.'s new ink plant, Kalamazoo, Mich.*

### Packing Felts and Cork Molders

Packing Felts and Cork Molders. Illustrated bulletin describes packing felts, cork molders and other stereotype molding accessories. American Publishers Supply.

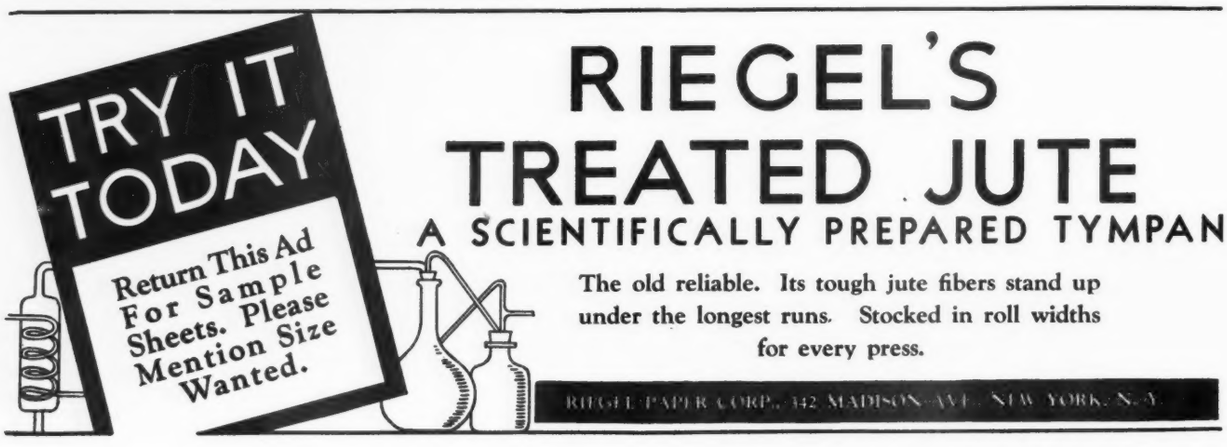
### Larger Offices for Miller

On May 1, the Chicago Branch of the Miller Printing Machinery Co. occupied larger offices in the Daily News Building. This move was necessitated by the need for more office room and better service facilities in Chicago and the middle-western territory. The new quarters provide double the former space with modern conveniences including executive offices, conference room and larger stockroom.

*C. C. Kohler, Manager*
*Chicago Branch, Miller Printing Machinery Co.*

Auto parking and truck pick-ups are more convenient. The Northwestern and Union Stations and the "Loop" are nearby.

Other leading Graphic Arts supply firms occupy space in the same building.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RIEGEL'S
TREATED JUTE
A SCIENTIFICALLY PREPARED TYMPAN
The old reliable. Its tough jute fibers stand up under the longest runs. Stocked in roll widths for every press.
RIEGEL PAPER CORP., 342 MADISON AVE., NEW YORK, N. Y.

# See a Demonstration

No. 3-A C&G Saw Trimmer

of this machine at the A. N. P. A. Mechanical Conference, Philadelphia, June 5, 6, and 7, and investigate its exclusive features such as

**Greatest Clamping Capacity**
**Universal Saw Blades**
**All Miters Face Up**
**Balanced Saw Arbor**
**Hinged Extension Gauge**

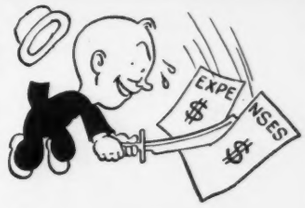
If you are unable to attend this conference, write for descriptive literature.

*We will prove what we claim*

**Milwaukee Saw Trimmer Corp.**
**612 East Clybourn St. Milwaukee, Wis.**



# Cut Down Expense! with Ready Cut Strips GUMMED PACKING FELT



*There's no Extra Charge*

Strips are cut any width desired and either 9 in. or 18 in. long. Packed conveniently in pigeon-hole containers marked as to size and gauge for quick usage.

NO EXPENSIVE WASTE
NO COSTLY CUTTING DELAYS
NO PASTING TROUBLES
NO UNEVEN WIDTHS
NO FUZZY EDGES
NO HANDLING DELAYS

American Publishers Supply
Box 131 West Lynn, Mass.


### Futura by Intertype

Intertype Corporation announces the cutting of Futura at its Brooklyn plant. The sizes now in process range from 6 to 14 point and include five weights—Light, Book, Medium, Demi-bold and Bold, each of which is duplexed with its respective oblique.

THIS paragraph set in twelve point size of Intertype Futura Medium *with Oblique* 234567

ABCD abcdefghijklmnop 1234
ABCD abcdefghijklmnop 1234
18 Point Engravers Text with Typo Roman Light

ABCD abcdefghijklmn 1234
ABCD abcdefghijklmn 1234
18 Pt. Vogue Bold Condensed with Vogue Condensed

Two other new Intertype cuttings are shown here—Engravers Text with Typo Roman Light and Vogue Bold Condensed with Vogue Condensed.

### Represents Korfund

The Korfund Company, Inc., Long Island City, N. Y., announces that sales, service and installation of Korfund Anti-Vibration Products in the Western Pennsylvania Territory is now handled exclusively by the Dravo Corporation of Pittsburgh, Pa. This territory is comprised of western Pennsylvania, West Virginia and part of Ohio.

## Equipment Sales

### Expansion Sales

Equipment amounting to about $200,000 in value, has been purchased by Baird-Ward Printing Company, Nashville, Tenn. The new press and bindery equipment will be used in handling the company's $400,000 annual Baptist Sunday School contract. Marshall & Bruce Company, also of Nashville, has placed orders for approximately $150,000 worth of machinery to be installed in its modern plant for producing letterpress and offset commercial work.

### Goss Sales

Used or rebuilt press equipment has been purchased from The Goss Printing Press Co., by the *Courier-News*, Elgin, Ill.; *Messenger-Enquirer*, Owensboro, Ky.; *News-Herald*, Hutchinson, Kansas; International Newspaper Printing Company, New York; Commercial Printing Company, Trenton, N. J., and Detroit *Westward*, Detroit.

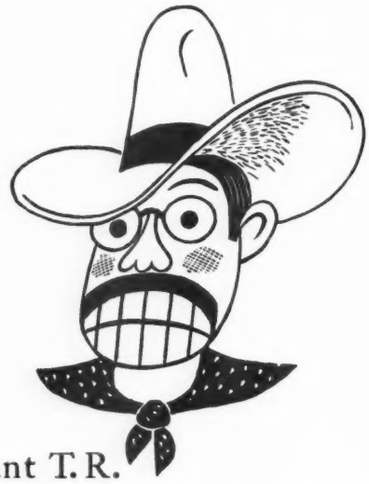
The Elgin (Ill.) *Courier-News* purchased a factory rebuilt floor-fed, Goss high-speed unit-type octuple press with two reversible printing couples and a four-roll paper roll arrangement with a motor roll hoist and two automatic double tensions at each end.

The Owensboro (Ky.) *Messenger-Enquirer* purchased a 24-page two-to-one Duplex tubular press which is to be installed in the near future.

A Goss unit-type sextuple press will be installed at the Hutchinson (Kas.) *News-Herald*. This press will be equipped with a pair of high-speed folders. One unit will have a pair of reversible cylinders with compensators. The paper roll frames will be provided with a roll hoist and automatic tension.

### Goss Magazine Press

A Goss 32-page high speed, anti-friction, magazine press has been purchased by the American Education Press, Inc., Columbus, Ohio, it was recently announced by The Goss Printing Press Company, Chicago. This press will have 35 in. circumference cylinders, being built to handle a 49 in. wide roll which will provide a product 8¼ x 12¼ in. The new press will be designed to print an extra color on all the outside pages, and in addition to the regular product, produce 8-page pasted signatures, inserted as a 16, 24, or 32-page signature; duplicate 4-page signatures, inserted into a 16 or 32-page signature, can also be delivered for mailing purposes. A removable oil offset arrangement will be installed on the second impression, and provision will be made for the attachment of dryers. The press will be built so that it can be lengthened between the first and second impression, increasing its capacity from 32 to 64 pages. Two two-page wide cylinder-size dauber pasters will be supplied and provision made for future installation of an additional two-page wide cylinder-size dauber paster. The folder is two pages wide, being a combination pin point gripper collecting folder with a two-page wide belt delivery. The construction of this equipment will provide for the future addition of an upper deck



Teeth meant T. R.

. . . in the early 1900's when all sorts of exciting things were taking place. *One* event important to printers was the Kimble idea of a motor built specially for printing equipment. Look back at those old machines if you want to see how much the Kimble idea has contributed to the progress of Graphic Arts. KIMBLE ELECTRIC COMPANY, 2011 W. Hastings St., Chicago, Ill.

Kimble MOTORS

*Distributed by* AMERICAN TYPE FOUNDERS

*Branches and Sales Agents in Twenty-Five Cities*



ON ROTARY PRESSES TOO,

*Number better with a* WETTER

• Save press time with WETTER Rotary Numbering Machines. WETTER features speed locking time and allow finer adjustment. WETTER interchangeability for right angle or parallel operation reduces necessary investment. WETTER accurately turned figures for all size cylinders insure better work.

Tell us your problem and we will show you how to save money and number better with a WETTER.

WETTER NUMBERING MACHINE CO.
ATLANTIC AVENUE & LOGAN STREET, BROOKLYN, N. Y.

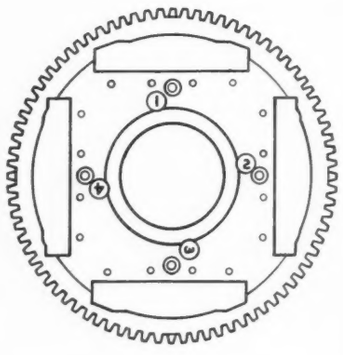

and a second jaw cylinder delivery for the other side of the press. The new equipment at the American Education Press will be similar to the Goss 32-page single web press recently installed at the Dayton plant of the McCall Corporation.

### Arkansas Gazette Buys Goss Press

*The Arkansas Gazette*, Little Rock, Ark., has purchased a new Goss High Speed Anti-Friction Press, consisting of six latest type units, pair of folders and single delivery folder equipped with tabloid slitters and four sets of angle bars. The units will be equipped with ink mist guards and electric brakes mounted on each unit and folder. Paper break detectors and web severing devices will be used. Press will be mounted on cast-iron sub-structure with six Goss reels. Twin motor drives are specified, and a separate motor generator set will provide direct current for energizing the electric brakes. Installation will include paper handling equipment, including roll trucks, transfer pit trucks and cast-iron tracks.

### Linotype Installations

Linotypes recently have been installed by the Monumental Printing Company, Baltimore, Md.; *North Penn Chat* and the *Tioga News*, Philadelphia, Pa.; Asbury Park (N. J.) *Evening Press;* Colonial Press, Inc., Clinton, Mass.; Worcester (Mass.) *Telegram* and the *Gazette; San Miguel County Journal*, Telluride, Colo;. Lexington (Ky.) *Leader* and the *Herald;* Fred E. German, Los Angeles; Trade Service Typesetting Company, Chicago; Green Printing Company, Louisiana, Mo.; Superior Typesetters, Inc , Atlanta, Ga.; Dawson County Review, Glendive, Mont.; Superior Typesetting Company, Toledo, O.; Walnut Creek (Calif.) *Courier-Journal;* Watkins Printing Company, Corbin, Ky.; Durango (Colo.) *Herald Democrat; Platte Valley Tribune*, Kearney, Neb.; Beaumont (Tex.) *Citizen Press;* Ottawa (Kans.) *Times;* Office Supply Store, Tupelo, Miss.; Callaghan & Company, Chicago; Link & Coleman, Inc., New York; Bliss Printing Company, Phoenix, Ariz.; Salem (Mass.) *News;* New England Art Publishers, North Abington, Mass.; Newark Printing Company, Newark, Del.; Buckeye (Ariz.) *Valley News;* Feder Press, Inc., Detroit, Mich.; Publishing House of the C. M. E. Church, Jackson, Tenn.; William F. Koenig, Jr., Philadelphia, Pa.; El Mundo Printing Company, Del Rio, Tex.; Gentry Bros. Printing Company, Huntington, W. Va.; C. H. Huband, Printer, Wilmington, N. C.; Feurer Typesetting Service, New York; Imprimerie Leclerc Enreg, East Templeton, Quebec.

**LINOTYPE MOLD DISKS REBUILT**

Our patented process substitutes a steel ring in place of broken or cracked iron rim. We also true up warped and sprung disks in the process. Loans and exchanges arranged. Rebuilding charge is only $30.

**MAGAZINES FOR LINOTYPES**

This magazine (for models L, 4, 5, 6, 8, 14, 18, 19, 25, 26) represents culmination of ten years' constant improvement manufacturing magazines. It is light—20 pounds lighter than an old style magazine. We use duralumin for top plate and brass for lower plate. Resulting magazine has all best features with criticisms of none. It is light, yet rugged. $95 each for full length—$90 each in lots of three or more. Splits $80 each —$75 each in lots of three or more. Time payments arranged. Also sold by nearly all dealers.

**NEW CATALOG** containing 108 pages, 8½ x 11, spiral-bound, is free for asking. Shows the many parts, accessories and repairs on which we can save you money.

**MATERIAL WANTED:** We buy, sell and trade new, used and rebuilt molds, magazines, fonts, Monomelts, motors, etc. Tell us of any surplus material.

**MONTGOMERY & BACON, TOWANDA, PA.**

# 292-Page Anniversary Edition Weighs 4 Lbs.

MECHANICAL Superintendent W. J. Phillips of the Oklahoma City *Daily Oklahoman* and *Times* and his staff of mechanical department executives are very proud of a recent accomplishment—and they have a right to be proud. The accomplishment consists of a 17-section, 292-page paper, published on Sunday, April 23, in celebration of 50 years of progress in Oklahoma.

Four hundred and thirty-five tons of paper were consumed in this 4 lb. Golden Anniversary Edition of the *Daily Oklahoman*. There were 200,000 copies distributed. The newsprint alone weighed 870,000 lbs. Into the papers went 12,500 lbs. of black ink and 1500 lbs. of color ink. A statistician on the *Times* (wonder if it were Mr. Phillips?) has figured it out that enough paper was used to stretch a sheet 17 in. wide more than 10,000 miles. If all 200,000 copies had been stacked in a single column, the column would have reached 17,500 ft. or more than 3 miles.

The entire job of producing and distributing the paper was carried out with regular facilities of the Oklahoma Publishing Company plus augmented man-power. If one didn't know just how the production was handled, he would not be impressed with the production difficulties because of the calibre of printing maintained throughout all of the sections in the entire edition. This is all the more to the credit of the mechanical executive personnel.

Liberal use of color in several of the section brightens the paper considerably. The color printing is excellent and the black-letter printing is uniform throughout. It is apparent that considerable study has been given to newspaper color printing problems. Liberal use of halftones throughout the paper impresses one with the advancement which has been made in recent years in newspaper printing.

One of the most interesting sections (16 pages) is that devoted to a historical and present-day account of the *Oklahoman* and the plant from which the Oklahoma Publishing Company's publications are published. Besides interesting plant views, pictures of many of the more than 800 persons employed by the company are grouped on various pages of this section.

In the mechanical department, portrait layouts we find that Composing Room Superintendent C. W. Lyman supervises 114 printers; Engraving Superintendent L. C. McMerrick has a force of 12 engravers; Stereotype Superintendent Elmer Hodgkinson employs 24 stereotypers; a total of 44 pressmen are employed by Pressroom Superintendent Harry M. Shelton; and 60 mailers are employed in Superintendent Charles Mathis' mailing department.

### Connecticut Kelly Press School

In cooperation with the Connecticut State Trade School of Bridgeport, Conn., American Type Founders is organizing a course of instruction for pressmen covering the ATF 17 x 22 Kelly, the Style B Kelly, and the C&P Craftsman Automatic Press. Registration opened Friday night, May 8th, and continues for 5 weeks. The sessions run 5 days each week from 6:30 to 8:30 p. m.

## Patents

(*Continued from Page 42*)

circular series of pins carried by the ring and projecting oppositely from opposite ends, the pins fitting the holes in the gear and clutch hub accurately to avoid play between the pins and holes, and a series of separable blocks carried by the ring and detachably mounted, the blocks having means for holding the pins with respect to the ring, whereby either the gear can be clutched to the shaft accurately.

6. In a matrix rolling machine, a frame; a bed reciprocally mounted in the frame; an upper roller journaled in the frame above the bed; a lower roller in the frame below and supporting the bed and disposed parallel with the upper roller; means for synchronously driving the bed and lower roller; and normally disengaged means on the rollers adapted to engage when the bed is at and adjacent its extreme outward limits of movement to cause the upper roller to rotate synchronously with the bed.

2,150,805. METHOD OF PREPARING HALFTONE NEGATIVES WITH VARIABLE-DENSITY SCREENS. Charles Edmund Meulendyke, Rochester, N. Y. No Drawing. Application May 5, 1937, Serial No. 140,985. 2 Claims. (Cl. 95—5.)

1. In the art of photo-mechanical printing, the method of producing a half-tone negative including the steps of passing a light image from a positive through a half-tone screen having uniform elements of variable density, passing the half-tone image thus formed through a uniform translucent layer which per se has light-diffusing properties, and impressing the resultant light image upon a suitably supported light-sensitive layer, the screen, translucent layer, and suitably supported light-sensitive layer being in contact during the impression of the image on the latter.

### Printing Presses:

2,145,056. HIGH SPEED CYLINDER PRINTING PRESS. Walther Rossger, Heidenau, Germany. Application July 10, 1937, Serial No. 153,013. In Germany March 23, 1936. 3 Claims. (Cl. 271—3.)

1. In a fast running printing press for sheet printing, having a cylinder and having guides, and having stacks of paper disposed outside of the press and away from the cylinder thereof, one of paper to be printed and one of printed paper, the combination of a swinging lever adapted to grip the top sheet of the stack of unprinted paper at the front edge of the sheet and deliver it to the entrance side of


*Sterling*
ON SILVER

*Form-O-Scorch*
ON MATRIX DRYERS

Because they are expressly designed for the purpose, Form-O-Scorch electric scorchers are recognized as a standard of perfection in matrix drying and forming machines.

There is a model designed expressly for either flat, curved or tubular work that will meet your requirements exactly.

*Write for Details*

American Publishers Supply
BOX 131, WEST LYNN, MASS.

ECONOMY MODEL
★
LOW COST
*Rouse* VERTICAL ROTARY MITERER

Cuts 700 perfect miters an hour direct from strip material. It is as accurate as the Rouse Master Vertical Rotary Miterer, yet it may be installed at a generous saving.

The NEW Economy Model Rouse Vertical Rotary Miterer is recommended for smaller plants, or for large plants where several machines will cut down walking time.

Complete information on the NEW Economy Model Rouse Vertical Rotary Miterer will be sent upon request. Write now.

H. B. ROUSE & COMPANY
2216 North Wayne Avenue · Chicago, Illinois

the cylinder prior to its printing, a second lever adapted to grip the same front edge of the sheet after it has been printed and deliver it in the same general direction of movement from the exit side of the cylinder to the stack of printed paper, the levers being so disposed in respect to each other that during the printing of the sheet free from both levers, the first lever moves in reverse direction to take up a new sheet from the unprinted stack, while the second lever moves in reverse direction to its position to grip the printed sheet after its printing, the stacks being arranged on different sides of the printing press away from the cylinder in a manner not to obstruct the same, and means for moving each of the levers to and from its respective side, whereby as the sheet is being delivered from the exit side of the cylinder, the next sheet is being fed to its entrance side.

2,148,455. GRAVURE PRINTING-PRESS DOCTOR BLADE CONSTRUCTION. Hyman Eli Golber and Alexander Zenone, Chicago, Ill., assignors to Miehle Printing Press & Manufacturing Company, Chicago, Ill., a corporation of Illinois. Application May 6, 1937, Serial No. 141,072. 52 Claims. (Cl. 101—157.)

52. In a doctor-blade construction for gravure printing-presses, the combination of a support, a doctor-blade having a sharp edge which is adapted to contact with the printing-element of the press and to scrape the excess ink therefrom, means to cause the doctor-blade to travel along the element with its edge in active engagement therewith, portions of the doctor-blade during the travel being alternately active on the element and inactive thereon, a sharpening-wheel in operative contact with an inactive portion of a face of the doctor-blade at one side of the edge, the surface of the wheel in engagement with the face being at an angle to the face oblique to the direction of travel of the blade, and means to rotate the sharpening-wheel in a direction whereby that portion of the surface thereof which is in contact with the doctor-blade face travels outwardly only of the blade away from the edge.

2,148,456. PRINTING-PRESS DOCTOR BLADE. Albert A. Grossarth, La Grange, Ill., assignor to Miehle Printing Press & Manufacturing Company, Chicago, Ill., a corporation of Illinois. Application August 10, 1936, Serial No. 95,299. 11 Claims. (Cl. 101—169.)

1. An endless, gravure-printing-press, metal doctor-blade having a transverse butt-welded joint extended across its entire width, the blade including the joint being of uniform thickness less than 10/1000 inch.

2,148,457. METHOD OF MANUFACTURING PRINTING-PRESS DOCTOR BLADES. Albert A. Grossarth, La Grange, Ill., assignor to Miehle Printing Press & Manufacturing Company, Chicago, Ill., a corporation of Illinois. Original application August 10, 1936, Serial No. 95,299. Divided and this application June 4, 1937, Serial No. 146,426. 10 Claims. (Cl. 29—148.)

1. In the making of an endless doctor-blade for printing-presses, butt-welding together the ends of a substantially uniform-thickness tempered steel strip of approximately 10/1000 inch thick, drawing the temper of the weld in a salt bath at about 600 deg. F. to that of the remainder of the endless blade, removing the excess metal from both sides of the blade at the weld to make the blade of uniform thickness throughout, grinding both sides of the blade throughout their entire surfaces to reduce the blade to a uniform thickness of approximately 5/1000 inch, grinding both edges in the blade in parallelism and bevel-grinding one of the edges.

2,149,606. DAMPENING ROLL FOR LITHOGRAPHING PRESSES. Clarence Walker Jones, Philadelphia, Pa. Application October 7, 1937, Serial No. 167,761. 3 Claims. (Cl. 91—67.8.)

1. A dampening roll for lithographic presses comprising, in combination, a roller and a cover therefor consisting of seamless knitted fabric provided on its outer face with elongated loops simulating pile.

# Equipment

*(Continued from Page 26)*

molding and drying time is from 3 to 5 min. If forms contain type, molding and drying time is from 4 to 8 min. Mats from book, magazine or sales book work are molded and dried in one operation in from 4 to 8 min. A lever movement reduces the predetermined high molding pressure to a low drying pressure in the ratio 1:6. For resinous mats and rubber printing plates, the Stereotex hydraulic may be equipped with steam-electric heating in the top platen. For wax and Tenaplate molds, the standard pressure control permits slowing down the ram speed.

For newspaper work, the 800 T. press is supplied with a 24 in. by 31½ in. platen. For job and magazine work (optional: for vulcanizing and wax molding), the 400 T. press is supplied with a 31½ in. by 36 in. platen; the 250 T. press a 25 in. by 30 in. platen, and the 180 T. press a 21 in. by 25 in. platen.

Further particulars may be secured from Stereotex Machinery Company direct or in care of *Printing* EQUIPMENT *Engineer*.

*P-Double-E File No. 2G10.*

## Finer Speed Adjustments

A new series of Select-O-Speed Transmissions with hand-wheel control has been announced by the Ideal Commutator Dresser Company, 5069 Park Avenue, Sycamore, Ill.

These new models supplement the standard line from fractional to 7½ h.p. capacity that are equipped with lever type control. The hand wheel is recommended where finer speed

*Hand wheel control Select-O-Speed Transmission may be fitted for remote control. May be adjusted, for instance, for varying printing press speeds.*

adjustments and smaller increments of speed are necessary. By turning the wheel a partial turn it is easy to change the speed a few revolutions per minute.

This type of control is suitable for installations requiring remote control. By replacing the hand wheel with a set of beveled gears and extension rod and universal joint, the point of control may be taken to a more convenient location.

Hand wheel control is available on Select-O-Speed Variable Speed Transmissions in sizes from 1½ h.p. to 7½ h.p. capacity.

*P-Double-E File No. 0??0.*


"FLECTO"

GUMMED PACKING FELT

"Flecto" gummed packing felt is successfully used on all types of dry mats.

● ALL GUAGES ARE UNIFORM
● EASY TO TEAR
● DOES NOT SLIP

Gauges .025, .030 and .035—Sheets 18 in. by 24 in. and guages .040, .045 and .050—Sheets 18 in. by 22 in. Cut into strips without charge.

*Write for free samples.*
*Special discounts on quantity orders.*

●

EASTERN NEWSPAPER SUPPLY
9603 Northern Boulevard Corona, L. I.



Cushman Offset Motors

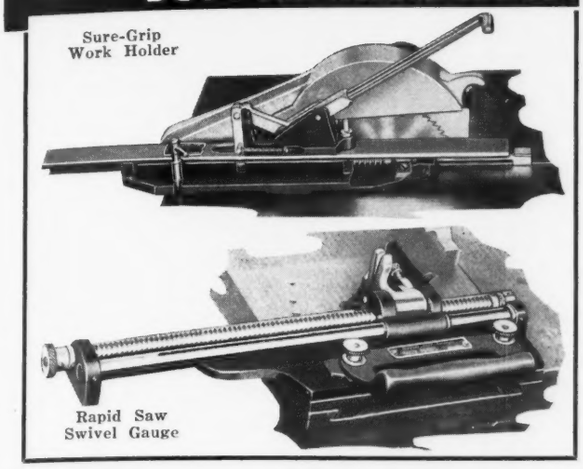
for Maximum Capacity and Low Operating Cost

Whether you select the Ball Bearing type—shown above—or the Standard "self-oiling" model, you will find that Cushman Offset Motors will operate your typesetting machines at their maximum capacities and at lower operating costs. There are more than 12,000 Standard models, alone, in use today throughout the world. Investigate.

CUSHMAN ELECTRIC CO.
65 S. Main St. Concord, N. H.

Western Agent:
Shaw Machine & Tool Co., 1151 Temple St., Los Angeles, Cal.

Make your old saw
BETTER THAN NEW!




**MODERNIZE THE MODERN WAY!**

Equip your old Miller Saw for better than new saw performance. The Sure-Grip Work Holder eliminates fanning, holds more slugs more securely than any other holder on the market. The Rapid Saw Swivel Gauge takes in measures from 6 points to 133 ems instantly, permits fine, micrometer adjustments. Easily installed. Write for details.

**MONOMELT CO.**

**1611 N. E. Polk Street** **Minneapolis, Minnesota**



**ZEPHYR BLACKS**

**Timed to the Tempo of the MODERN Pressroom!**

Perfected in three grades, they are available for practically any job. But you must try them to fully appreciate their value; it is impossible to adequately describe them. You must see for yourself how they speed production . . . with safety and certainty.

They cost no more than ordinary inks and every plant should stock Zephyr Blacks for rush jobs. Write for descriptive folder.

*Sinclair & Valentine Co.*

MAIN OFFICE AND FACTORY:

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BRANCH OFFICES

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| Albany | Chicago | Los Angeles | New Orleans |
| Boston | Dallas | Philadelphia | Nashville |
| Baltimore | Dayton | Jacksonville | Kansas City |
| Birmingham | Cleveland | Seattle | San Francisco |
| Havana | | New Haven | Manila |


### Ninth Bernhard Gothic

With Bernhard Gothic Medium Condensed, American Type Founders announces its ninth type face by Lucian Bernhard.

**Bernhard Gothic Medium Condensed**

Within a narrow compass, the new face preserves the originality and legibility of its eight predecessors.

The previous eight Bernhard Gothic faces, in the order of their appearance, include medium and medium italic; heavy; light and light italic; extra heavy; light title; medium title.

### Matazine Mat Containers

Matazine mat containers and transfer equipment for storage only of line-casting machine matrix fonts have been announced by the Matazine Company. The Matazine Container is made of duralumin, weighs approx. 30 lbs., and measures 24 in. by 27½ in. area in place of the customary trapezoidal shape of standard magazines. It is said a font of matrices may be transferred from a container to a full-length magazine in less than 2 min. time.

To accomplish the shifting of a matrix font from a container to a regular magazine, the container containing the font of matrices and

LEFT—*Line-casting matrices being transferred from a magazine to Matazine matrix storage container. Tilting the table permits matrices to flow by gravity from magazine to container.*


**· TYPE ·**

**CAST FROM HARD METAL**

**35c** PER LB. AND UP

*Depending on Size and Face*

**The Consolidated Press & Printing Co.**

**1435 East 12th St.** **Cleveland, O.**



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**Extra smooth surface and uniform density.**

**Guages ¼ in., 5/16 in. and ⅜ in. Each gauge supplied in Hard, Medium and Soft.**

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**"PLATE-TAK"**
**CUT MOUNTING TAPE**

No tacks. No cement to squeeze out. Simply lay a strip of this super-thin tape under the cut; press down by hand, and the cut is there to stay. When through, the tape strips off, leaving clean surfaces on both cut and base.

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If you want to know where it is manufactured or where it can be obtained . . .

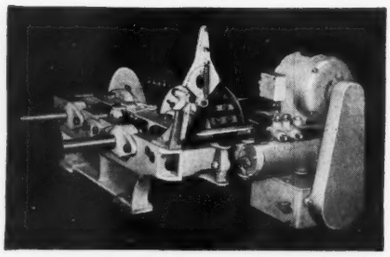
*Look it up in the*

1939 Equipment and Supplies Reference Index

the empty magazine are placed end to end on a tilting type table, the table is tilted and the matrices flow by gravity from the container to the magazine. The table section swings from a central axis so that it may be tilted either way. A central connecting element on the table containing channels identical with the magazine channels guide the matrices. Operation is reversed when matrices are to be transferred to the container from a magazine. Containers and the table are adapted to three-quarter and split magazines by the addition of a filling piece applied to the magazine side of the table.

### Reeves Hydraulic Automatic Control

Reeves Pulley Co. announces an improved type of hydraulic automatic control for use with the Reeves Variable Speed Transmission. With the Reeves Transmission as a basis, this control provides entirely automatic speed regulation to make possible synchronization of different machines and separate sections of a single machine; maintenance of constant tension and uniform peripheral winding speeds, such as synchronizing winding and unwinding operations on or off printing presses. On another application, the transmission maintains automatic and uniform tension on the paper web coming through an offset printing press so that the printing and punching of holes will register perfectly.



*Reeves improved type of hydraulic automatic control for use with Reeves variable speed transmission for such operations as synchronizing winding and unwinding operations on or off printing presses.*

The control is claimed to be simple and compact in design, with few working parts, sensitive and positive in speed regulation and dependable and economical in performance. Pressure of two or three ounces will produce change in speed. Back lash and lost motion are eliminated and liquid in the oil pump acts as a brake to prevent movement when the control is in "neutral," thus preventing "coasting" and "hunting."

From 6 to 20 seconds are required to shift the transmission from maximum to minimum

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Semi-Cylindrical • Unitubular
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Flat Bed • Stereo Machinery

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**DOUBLE TRUCK EQUIPMENT**—Perfect condition, 7/16-inch plate, for press cut-off 22¾ inches; 6 ton metal pot with pump and new gas burner; Hoe power tail cutter, 45 degree bevel for lock-up; Hoe power shaver, lined with copper, 230 volts, 2 phase, 60 cycle. PHILADELPHIA RECORD; J. M. Toler, Mechanical Superintendent, Broad and Wood St., Philadelphia, Pa.

**Wanted to Buy**—Used Model B or C Intertypes complete but without matrices. State model and extra equipment like electric pot, motor, etc. Springfield Republican, Springfield, Mass.


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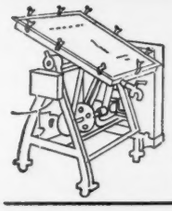

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• The only method of cleaning magazines and mats mechanically—without running out the mats. Adopted by the leading printing plants and approved by Linotype Company and Intertype Corp. Improves production—Actually pays for itself.

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speed and *vice versa*, depending on size and ratio. Protective mechanism absorbs the shock of sudden or violent shifting, thus preventing damage to control or transmission.

As is shown in the illustration, the control is mounted at one end of the transmission frame. A self-contained hydraulic power plant is mounted on the right hand set of shifting levers of the transmission (which control disk and belt diameters and thus effect speed changes). This plant consists of a small electric motor operating an oil pump in a reservoir to supply hydraulic power.

A two-way valve is mounted integral with a cylinder immediately above the reservoir. A piston connects to the left hand set of shifting levers while the cylinder connects to the right hand set, the combination of which, together with motor and oil pump, offers the source of power for speed regulation. The valve directs flow of oil to either right or left hand side of the piston, thus operating it in either direction to increase or decrease transmission speeds.

Equalizing links interposed between the two pairs of shifting levers insure equal movement on both pairs and maintain alignment of the transmission V-belt in the disks.

The valve is actuated by a connecting rod which connects to an extended lever, above. This lever may be attached by cable or chain, or direct, to a compensating or floating roll, pressure regulator, moving carriage or part of the driven machine from which indication of required speeds can be taken.

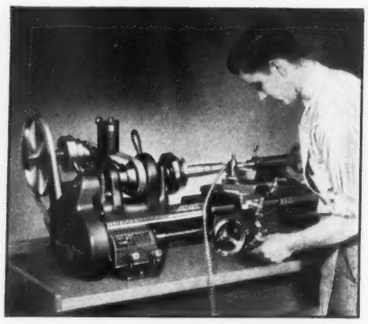
The control lever can be located any place on a 360 deg. circle to give direct connection to the operating mechanism.

*P-Double-E File No. 5ZZ.*

## New Model Lathes

Two new models have been added to the well-known line of 9 in. Workshop Precision Lathes manufactured by the South Bend Lathe Works. The new model Lathes are known as Models A and B.

The new Workshop Model A Lathe is of the quick change gear type and has an automatic



apron with friction clutch drive for operating the power cross feeds and power longitudinal feeds. The new Workshop Model B Lathe is of standard change gear type and also has an automatic apron with friction clutch drive for operating the power cross feeds and power longitudinal feeds.

The new Quick Change Gear Box developed for Workshop Model A Lathe provides 48 changes for cutting right and left hand screw threads 4 to 224 per inch, and 32 power longitudinal feeds ranging from 0.0014 in. to 0.0208 in. per revolution of the lathe spindle. All gears in the gear box are steel and are precision machine cut. Metric thread cutting equipment can be supplied for those using the metric system.

The new automatic apron for both the Workshop Model A and the Workshop Model B Lathes is equipped with a friction clutch drive for operating the automatic power cross feeds and the automatic power longitudinal feeds of the lathe carriage. The power cross feeds and power longitudinal feeds are both operated by a worm which is driven by a spline in the lead screw. The threads of the lead screw and the half-nuts are used only when cutting screw threads. An automatic safety interlock prevents engaging the power carriage feeds while the half-nuts are in use.

All gears in the automatic apron are made of steel and the gear teeth are cut from the solid on precision gear hobbing machines. The worm wheel and the clutch for driving the power feeds operate in oil.

Features include: Acme thread precision lead screw for cutting threads on master taps, precision gauges, etc.; heavily constructed lathe bed with 3 V-ways and one flat way hand-scraped to accurately align headstock, tailstock and carriage; alloy steel headstock spindle with ¾ in. hole provides collet capacity up to ½ in.; a back-geared headstock provides six spindle speeds, and spindle has a ball thrust bearing for eliminating end play; new improved capillary oiling system for spindle bearings; twin gear reverse for right and left-hand threads and feeds. Hardened headstock spindle is also included as standard equipment on Model A and B.

*P-Double-E File No. 1CC.*

# Advertisers' Index


| | Page |
|---|---|
| **American Publishers Supply** | 51-53 |
| **Atlantic Zinc Works** | 39 |
| **Bingham's, Sam'l, Son Manufacturing Company** | 13 |
| **Blatchford, E. W., Company** | 20-21 |
| **Booth, E. A., Rubber Company** | 39 |
| **Brandtjen & Kluge, Inc.** | 12 |
| **Burgess Cellulose Company** | 47 |
| *Agency:* Almon Brooks Wilder, Advertising, Chicago, Ill. | |
| **Certified Dry Mat Corporation** | 43 |
| *Agency:* The H. P. Boynton Advertising Agency, Cleveland, O. | |
| **Challenge Machinery Company, The** | 43 |
| *Agency:* Simmonds & Simmonds, Inc., Chicago, Ill. | |
| **Champion Paper & Fibre Company, The** | 25 |
| *Agency:* Japp Orr Co., Advertising, Cincinnati, O. | |
| **Cline Electric Manufacturing Company** | 57 |
| *Agency:* Almon Brooks Wilder, Advertising, Chicago, Ill. | |
| **Consolidated Press & Printing Company** | 55 |
| **Coyne & Paddock, Inc.** | 57 |
| **Cromwell Paper Company, The** | 57 |
| *Agency:* Roche, Williams & Cunnyngham, Inc., Chicago, Ill. | |
| **Cushman Electric Company** | 54 |
| **Duplex Printing Press Company, The** | 57 |
| **Eastern Newspaper Supply** | 54-55-56 |
| **Edes Manufacturing Company, The** | 48 |
| *Agency:* Callaway Associates, Inc., Boston, Mass. | |
| **General Electric Vapor Lamp Company** | 29 |
| *Agency:* G. M. Basford Co., New York, N. Y. | |
| **Goodyear Tire & Rubber Company** | 8 |
| *Agency:* Arthur Kudner, Inc., New York, N. Y. | |
| **Great Northern Paper Company** | 20-21 |
| **Hamilton Manufacturing Company** | 35 |
| **Hammond Machinery Builders, Inc.** | 37 |
| **Harris-Seybold-Potter Company** | 7 |
| *Agency:* Baker and Baker & Associates, Inc. | |
| **Huber, J. M., Inc.** | 20-21 |
| *Agency:* Bermingham, Castleman & Pierce, New York, N. Y. | |
| **Imperial Type Metal Company** | 45 |
| **International Printing Ink Corporation** | 47 |
| *Agency:* T. J. Maloney, Inc., New York, N. Y. | |
| **Intertype Corporation** | Outside Back Cover |
| *Agency:* Fred Glen Small, New York, N. Y. | |
| **Kelly, E. J., Company** | 57 |
| *Agency:* Almon Brooks Wilder, Advertising, Chicago, Ill. | |
| **Kemp, The C. M., Manufacturing Company** | 37 |
| *Agency:* Frank D. Webb, Advertising, Baltimore, Md. | |
| **Kimble Electric Company** | 52 |
| *Agency:* Kirkgasser-Drew, Inc., Chicago, Ill. | |
| **Klean-O-Mat Corporation** | 57 |
| **Lanston Monotype Machine Company** | 22-23 |
| **Linograph Corporation** | 49 |
| *Agency:* Fred Hinrichsen, Advertising, Davenport, Iowa | |
| **Linotype Parts Company** | 33 |
| **Ludlow Typograph Company** | 5 |
| **Matrix Contrast Corporation** | 14 |
| *Agency:* Fred Glen Small, New York, N. Y. | |
| **Mergenthaler Linotype Company** | Inside Front Cover |
| *Agency:* Kenyon & Eckhardt, Inc., New York, N. Y. | |
| **Mersey Paper Company, Ltd.** | 20-21 |
| **Milwaukee Saw Trimmer Corporation** | 51 |
| **Monomelt Company** | 55 |
| *Agency:* Olmsted-Hewitt, Inc., Minneapolis, Minn. | |
| **Montgomery & Bacon** | 52 |
| **National Graphic Arts Expositions, Inc.** | 10 |
| **New England Newspaper Supply Company** | 20-21 |
| **Niles & Nelson, Inc. (Div. B. F. Goodrich Rubber Co.)** | 20-21 |
| *Agency:* Griswold Eshleman Co., Cleveland, O. | |
| **Philadelphia Record** | 57 |
| **Pittsburgh White Metal Company** | 20-21 |
| **Powers Photo-Engraving Company** | 20-21 |
| **Rapid Roller Company** | 49 |
| *Agency:* Burton G. Feldman & Associates, Chicago, Ill. | |
| **Reid, William, & Company** | 57 |
| **Riegel Paper Corporation** | 50 |
| *Agency:* Wm. H Hodgins, New York, N. Y. | |
| **Rivett Lathe & Grinder, Inc.** | 56 |
| **Rolled Plate Metal Company** | 39 |
| **Rouse, H. B., & Company** | 53 |
| *Agency:* Clifton Kirkpatrick, Chicago, Ill. | |
| **Scott, Walter, & Company** | 20-21 |
| *Agency:* R. F. R. Huntsman, Plainfield, N. J. | |
| **Sinclair & Valentine Company** | 55 |
| **SKF Industries, Inc.** | 11 |
| **Springfield Republican** | 57 |
| **Sta-Hi Corporation** | 3 |
| **Tinque, Brown & Company** | 57 |
| *Agency:* The Overhague Advertising Agency, New York, N. Y. | |
| **Vandercook & Sons** | Inside Back Cover |
| *Agency:* Clifton Kirkpatrick, Chicago, Ill. | |
| **Vulcan Proofing Company** | 33 |
| *Agency:* Fred Glen Small, New York, N. Y. | |
| **Webendorfer-Wills Company, Inc.** | 57 |
| *Agency:* G. M. Basford Co., New York, N. Y. | |
| **Wetter Numbering Machine Company** | 52 |
| *Agency:* O. S. Tyson & Co., Inc., New York, N. Y. | |
| **Wood Flong Corporation** | 20-21-45 |
| *Agency:* Kaye-St. George, Advertising, New York, N. Y. | |
| **Wood Newspaper Machinery Corporation** | 6 |
| *Agency:* Fred Glen Small, New York, N. Y. | |

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# MAKE PRESSWORK *Easier* AND *More Profitable!*

No. 4 Hacker Block Leveller

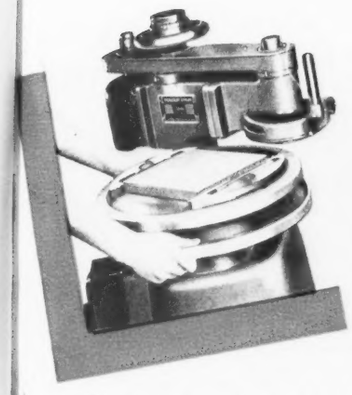
Plates and forms properly prepared for type height, before they are sent to press or foundry, reduce makeready time on the press, and increase press production. Consequently presswork is easier and running time greater.

The Hacker Block Leveller affords the easiest method of accurately planing plates either wood mounted or metal mounted to type height.

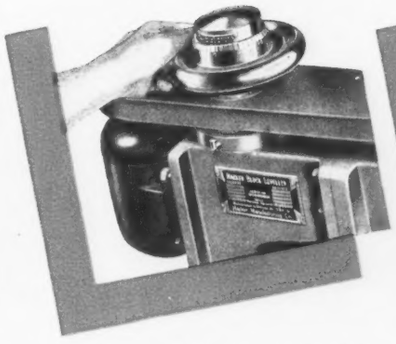
No specially trained operator is necessary. Height is determined by easily read dial, which is quickly set. The cut is accurate.

The Hacker Block Leveller offers the economical solution to the problem of planing cuts to definite heights. No calculations are necessary. The illustrations below show the simple operations.

Complete information and prices on the Hacker Block Leveller will be sent upon request and without obligation to you.

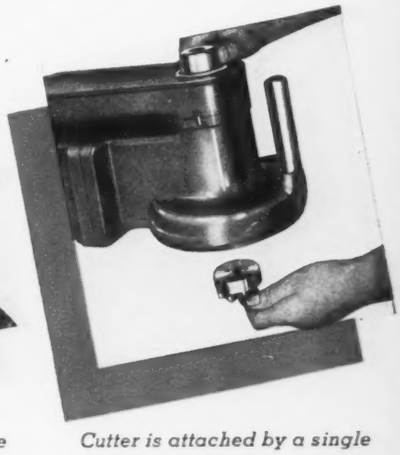


*Block is placed on table top and quickly clamped in position by a turn of the convenient bottom ring.*



*A turn of the hand wheel instantly sets cutting height. Graduations are easily read by the operator.*

*Cutter is drawn across the block by hand. The table turns slowly after being started by operator.*



*Cutter is attached by a single nut. It is always square to work. Easy to change for metal or wood.*

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